

# NORTHERN ILLINOIS APPLE USERS GROUP

\$2.50

VOL5-NO. 5

## THE HARVEST

JUNE 1984

MEETING DATE JULY 14, 1984

10:00 am-1:00 pm Building A, Harper College

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\*24 hr GENERAL INFORMATION NUMBER

312-844-7555

## CORRECTIONS/CHANGES OF ADDRESS

Corrections/changes of address MUST be sent to the club secretary. Mailings are by bulk presorted third class mail. Any incorrect addresses will usually result in missed issues.

Membership is open to all. Dues are \$24.00 annually with a one time initiation fee of \$5.00 at the time of admission. Membership applications are available from the club Secretary at the meetings or by mail.

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Helen Tufts

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Software— Rich McNeil

Beginners— Al Guthrie

Education/Book Reviews— Sheldra Horwitz

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SYSOP-Dave  
& Joel Alpert

## SUBMITTING ARTICLES

Handwritten articles are acceptable but articles on disk are preferred. Articles on a disk should use one of the following word processors: Easywriter, Applewriter, PIE or Magic Window. Use a 0 left margin and a line length of 47 characters for Easywriter and 41 for all others. Fill and right justify all text. Also supply a hard copy of the article for proof reading purposes. If your article includes a program listing please submit it on disk unless you have a printer that uses carbon film ribbon. All disks will be returned at the meeting unless requested to do otherwise.

# MEMBERS AIDE

The members listed below have volunteered to answer questions from club members who need a "HOTLINE" type answer that can be handled over the telephone. Please try to be brief as a courtesy to them. PLEASE NO CALLS at dinner time or after 10 pm.

ADDITIONAL VOLUNTEERS REQUIRED TO FILL OUT THIS MEMBER SERVICE. IF YOU FEEL QUALIFIED IN ONE OF THE SUBJECTS BELOW PLEASE CALL THE EDITOR TO HAVE YOUR NAME ADDED TO THE LIST.

GENERAL	Paul Stadfeld	312-359-2378	P	*Dave Drucker	312-541-2124
TECH NOTES	?	?	A,I	*daytime	
BULLETIN BOARDS	Joel Alpert	312-295-6078	M,A,I	Rich Lumdeen	312-420-8468
COMMUNICATION PACKAGES & MODEMS/TELECOM			M,A,I	Paul Stadfeld	312-359-2378
Apple Cat II	?	?	M,A,I	Gry Lyle	312-359-1458
DC Hayes Micromodem	Joel Alpert	312-295-6078	M,A,I	Joe Zeinz	312-526-0575
	Tony Antonucci	312-282-8436	M,A,I	Earl Allen	312-837-9259
	Rich Lumdeen	312-420-8468	A,I,P	Ken Nestle	312-620-7745
DC Hayes Smartmodem	?	?	A,I	Jim Murphy	312-449-3139
ASCII Express	Joel Alpert	312-295-6078	A,P,C,	Tony Antonucci	312-282-8436
	Tony Antonucci	312-282-8436	8080, Z80 Assembler	Tony Antonucci	312-282-8436
Z-pro	Tony Antonucci	312-282-8436	F	Bob Sullivan	312-383-7785
Data Capture	?	?	C	?	?
Visiterm	?	?	A,C,Cobol	Loren Avenson	312-259-9433
Source	?	?	Fortran	John Kelley	414-354-7656
			Logo	?	?
			Pilot	?	?
HARD DISKS			SPREADSHEETS		
Corvus	*Dave Drucker	312-541-2124	Multiplan	?	?
	*daytimes		Microfinesse	*Dave Drucker	312-541-2124
Corona	Walt Hopkins	815-459-1769		*daytime number	
	?	?	LogiCalc	Peter Clarke	312-545-0974
COMPILERS			The Spreadsh/Magi-calc	Bob Steinberg	312-677-8787
Tasc	Rich McNeil	312-986-0548		Joe Sobel	312-398-1836
Expediter	?	?	Incredible Jack	?	?
			VisiCalc	Joe Sobel	312-398-1836
			VisiCalc	Jay Toutenhoofd	312-359-1460
DATA BASES			OPERATING SYSTEMS		
dBase II	?	?	Apple DOS	Jim Glore	312-843-3215
DB Master	Max Rubin	312-674-7209		Tony Antonucci	312-282-8436
	Natalie Alberts	312-381-1530	CPM	Tony Antonucci	312-282-8436
Data Factory	Ken Falter	312-259-6474	UCSD P-System	*Dave Drucker	312-541-2124
General Manager	Rich McNeil	312-986-0548		*daytime number	
Infomaster	?	?	PRINTERS		
List Handler	?	?	General	Terry Tufts	312-577-7381
Versaform	?	?	Apple Dot Matrix	David Macaulay	312-991-4977
Visifile	?	?	Diablo	Peter Clarke	312-545-0974
PFS	Byrd Dehinten	312-998-8742	IDS	?	?
	Rich McNeil	312-986-0548	Epson	Tony Antonucci	312-282-8436
EDUCATION SOFTWARE	Jim Bradshaw	312-881-7000	NEC Spinwriter	Beldon Rich	312-272-8236
GAMES		?	NEC 8023	Bob Steinberg	312-677-8787
GRAPHICS	Paul Stadfeld	312-359-2378		Rich Lumdeen	312-420-8468
HARDWARE	Jim Murphy	312-449-3139	ProWriter	Tom Grisko	312-297-0927
8" disk Drives	Tony Antonucci	312-282-8436	Okidata	Peter Clarke	312-545-0974
				*Dave Drucker	312-541-2124
				*daytime number	
ACCOUNTING			WORDPROCESSORS		
The Accountant	Walt Hopkins	815-459-1769	Easy Writer	Terry Tufts	312-577-7381
Home Accountant	Tom Grisko	312-297-0927	Apple Writer II	Ken Falter	312-259-6474
Time is Money	Bob Steinberg	312-677-8787		Rich McNeil	312-986-0548
BPI	*Debbie Hauser	312-272-8236	Format II	Bob Steinberg	312-677-8787
*daytime			Gutenberg	?	?
BEGINNERS AIDE	*Rich Lumdeen	312-420-8468	Letter Perfect	?	?
	*Applesoft, DOS, Assembler		Magic Window	Ed Evenson	312-255-3403
	VisiCalc			Rich Lumdeen	312-420-8468
INVESTMENT	John Hoffmann	312-998-0164	ScreenWriter II	Rich McNeil	312-986-0548
INVESTMENT	Jim Bradshaw	312-881-7000		Tom Grisko	312-27-0927
LANGUAGES			Supertext II	?	?
(A)pplesoft, (I)nteger, (P)ascal,			Apple Pie/PIE Writer	Walt Hopkins	815-459-1769
(F)orth, (L)isp, (M)achine code,			Word Handler	?	?
A,I	Ted Rosemann	312-882-7938	WordStar	Peter Clarke	312-545-0974
A,I	Mary Rosemann	312-882-7938			
P	Herb Schulz	312-968-6927	GENERAL BUSINESS	Tony Antonucci	312-282-8436
			Stats Plus	Ken Falter	312-259-6474

## EDITORIAL

by Terry Tufts

Well it been a very busy month. We've produced a 44 page LIBRARY INDEX (1200 copies), 8 page NIAUG INFORMATION PACK (4000 copies), May Harvest, 40 pages (800 copies), and postcards (800 copies). Its getting so the printer rubs his hands together every time he sees me.

As part of NIAUG's public relations program we made a mailing to all the surrounding public libraries offering to supply Harvests to them if they agreed to make them available for their borrowers. So far we have received positive responses from over half of the 48 libraries contacted.

### HARVEST CELEBRATES FIFTH YEAR OF PUBLICATION

This is the fifth year of Harvest's publication. Many people have come and gone since the Northern Illinois Apple Users group was founded but many of the original shakers and movers are still active. We thought it would be very interesting for you to see the original issue and some along the way. We are proud of the growth of The Harvest and perhaps you might recognize some of the contributors that have helped to make it what it is today.

### USERFEST

We had a very good response at the Userfest to the booth. We gave out about 1800 copies of our Information Pack. I spent some time in the NIAUG booth and was impressed by the number of people who dropped by. A very strong thanks to all the people who manned the booth. I hardly recognized most of them as I didn't expect them to be all in incognito. I'm use to seeing them in their go to NIAUG formal bum look and was very impressed to see them in their best "Sunday-go-to-meeting" duds. A special thanks to Chris Otis for all his efforts. The booth looked very professional and the organization to make sure the booth was always manned was superb. The booth was a major attempt to increase our membership size and the corresponding benefits to all the members. We have kicked around a number of new ideas that we think you may like. You will see some of these in the Pres Says column. We need your comments so lets hear them.

### SPECIAL INTEREST GROUPS

As some of you may have noted our SIGS have been losing a bit of momentum due to some of the SIG Chairpeople having other activities competing for their time.

I'm pleased to tell you that we have had several new people want to get some SIGS started. We have announced the MAC SIG, and hope to announce a Hardware SIG shortly. There must be enough people out there for a Lisa SIG. How about it? We have a large number of teenagers in the group and can't believe that they can't form a group. If any one has a subject that they would like to pursue with a group of like minded individuals speak up and form a group. These groups don't have to be permanent and can exist to explore a program, a language, an operating system, a piece of hardware or whatever. If you have an interest, form a group and leverage your time by sharing your knowledge, ignorance etc. with other like minded individuals.

### ERRORS AND OMISSIONS

We ran an Article entitled "Open Comments on Peter Mc Williams in the Tribune" in last months Harvest. The writer did not get any credit. We apologize to George Mc Clarity for omitting his name.

### AN APPEAL FOR INFORMATION

The Harvest is always looking for interesting information and articles. It strikes me that those of you on the HOT LINE answer questions that are of general interest. We would appreciate it if you would tell us about the questions you are asked and the answers you give. Also we would like your comments and suggestions on topics that you would like to see in the Harvest as we are a little too close to have true objectivity. Either send me a note or give me a call.

# Northwest Suburban Apple Users Group

VOL. 1, NO. 1

NSAUG NEWSLETTER

JUNE, 1979

```
*****
*
*          IMPORTANT ANNOUNCEMENT
*
*  RANDY PETERSON of APPLE'S applica-
*  tions department will be guest speaker
*  at our June 2nd meeting. He is in town
*  in conjunction with the CES and has
*  graciously accepted our invitation to
*  appear at our meeting. Bring questions.
*
*****
```

An editorial on this, our first newsletter.

First, let me introduce myself as an APPLE II user. I purchased my computer because my TI-59 got me interested in the power of programming and computing. I needed something with unlimited memory (don't we all), custom programability and temporary (T. V.) or permanent copy. Well, 32K and a tape recorder were an excellent start; however, quickly discovering that string storage on tape and the fleeting display on a T. V. screen were not exactly what I had in mind, I bought a disc drive and printer. GOOD GRIEF! What possibilities this opened up. Then some late night programming and a mass of data and "Look at this!".

Alright, now I knew what my utility payments for the house looked like for the past eight years. What's the current upkeep on the auto? Well, let me drop in this other disc and push and.....

After a year of debugging and data punching I'm just getting to the finess of programming, but believe you me, from some of the club meetings, I realize that I am only a "hacker" (duffer, or whatever). So here I (we) am to the initial club newsletter.

editorial continues  
on page two

## EDITORIAL(cont')

El Presidente, Ken Rose, opened the May meeting with a question to the membership about having a newsletter at all. Well, yours truly has been saying to himself- "You're not going to get to all the meetings. Why join if you don't know what's going on?" So naturally, as soon as the subject came up, up went my hand and here we are.

A newsletter can not (nor should) contain every word said at a meeting. My intentions are to outline the programs so you may get in touch with the speaker for a more indepth discussion of the subject. Nothing. Let me repeat that, NOTHING, will ever take the place of your actual attendance. At every meeting I have seen someones eyes light up at an obscure statement and on more bit (or byte) falls into place. If you are like me, everytime I come home from a meeting, out comes the APPLE from the bin and "Now, what did he say? Peek or Poke.....".

Let's look to the future for a moment. In the following issues we hope to update basic information about the club, new members, new programs, good-bad or indifferent hardware and software. We will make the publication fit a three ring binder so you may keep up to date files on NSAUG and be an activeparticipant in all phases. Your officers and program chairmen realize that everyones' interest differs (I'm not a gamester) and they need your input to keep our meetings meaningful to everyone. I am sure you are aware that the NSAUG will be only as good as the support of the membership allows through the coming centuries.

Now I want to make an appeal to you. Not the person next to you or any other person. YOU! I cannot attend every meeting. I need an assistant. This is the first time I have ever attempted to put together a newsletter so believe me, I need all the help I can get. Someone said, "Experience is the best teacher." I'm certainly going to learn a lot doing this newsletter. Why don't you join me and we'll learn together.

From now on I won't be so verbose and I thank you for bearing with me. Now, how does that go-"Hold your nose and jump feet first," er, "Hold your feet and fall face down"?

Don Fuller, Editor

## CLUB NEWS

Copies of the proposed club constitution will be handed out at the June 2nd. meeting. The constitution will be voted on at the July meeting

Elections for vacant offices will be held at the July meeting. Nominations will be accepted at that time.

## MINUTES

The May meeting was called to order at 12:00 noon by President Ken Rose.

Attendance was 36.

John Russ gave an excellent discussion of how to make a joystick. Handouts were made available to attendees. Some are still available. Ask John. They may be in Chinese by the time you get this.

Earl Allen, alias Peeking Earl, gave an interesting talk on Peeks, Pokes and Calls. Handouts will be forthcoming.

Goodie Corner reported that DOS 3.2 is out. Current cost is \$500. That includes a drive as well. Discs and manuals will be out soon at about \$20 per set. Also reviewed and recommended were SCREEN MACHINE(\$9.95), a HIRES Character builder and DAN'S DISC UTILITY package(\$39.95) which does some nice things like single disc copy and expurge DOS.

Mike Robins held a Question and Answer period in which questions were asked and answers were given.

Skip Neiburger gave a treasurers report. The club treasury has \$375.44.

The next meeting was set for noon Saturday June 2, at the Palatine Park District clubhouse

## July Agenda

- 11:30-12:00 Greeting new members
- 12:00-12:30 Discussion of Constitution
- 12:30- 1:00 Voting on Constitution
- 1:00- 1:30 Nomination and Election of vacant offices
- 1:30- 2:00 Goodie Corner
- 2:00- 2:30 Question and Answers: Mike Robbins(may also include discussion of DOS 3.2 manual and instructions
- 2:30- 3:00 Closing remarks

## Current Club Officers

President: Ken Rose  
 Vice President: Vacant  
 Librarian/Secretary: Skip Neiburger  
 Treasurer: Vacant(Skip temporarily)

Newsletter Editor: Don Fuller  
 Newsletter Publisher: Dave Alpert

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 650 Pompano Lane  
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HELP  
HELP

You will notice that there is no logo on the front page of our Newsletter. Also, we have titled this "Newsletter". Both of these problems need your help. Therefore, we are conducting the Great Logo Hunt and The Great Newsletter Title Hunt. Due to the limited budget of the club the prizes we will be awarding will be modest(see problem corner). First prize for each of these two contests will be free membership in NSAUG from January 1979 til June 1979 not retroactive. Second prize will be halve of the above.

This newsletter is edited by Don Fuller and published by Dave Alpert. The aforementioned are not liable for accuracy of contents inasmuch as neither types well or spels rite.

## PUZZLE PALACE:

When do you use? \*48:Ø

1st prize: One old DOS manual  
2nd prize: Two old DOS manuals

This column will appear as often as there is material to print. Your contributions are solicited.

## SOFTWARE COMMENTS

If you have just purchased an interesting program or seen one printed in a magazine or newsletter, we would appreciate hearing your comments. Please submit your articles to Don Fuller, Editor.

We were going to talk about an Apple-soft append and renumber program that appeared in MICRO 12, but the new DOS 3.2 has a beautiful version making the MICRO ie obsolete.

## HARDWARE COMMENTS

Same as above. We need your experiences with different types of hardware. Does anyone have an Apple Clock (Mountain Hardware) that they would write about?

## WANT ADS

Buy, Sell or Swap your unneeded goods. This column will be available to members to use provided their ad pertains to computer related merchandise or services. No charge of course. Send ads to Dave Alpert.

LISTING DOS ERRORS  
by Mike Rose

Each DOS error messages' character has been stored as its ASCII number between -22322(A\$8CE) and -22144(A\$98Ø). To retrieve this information using APPLESOFT, it is necessary to first convert each byte into a character. The program below lists each error and separates them with a comma.

```
]
Ø TEXT:CALL-936
1Ø CLEAR:REM RETURNS ALL VARIABLES TO Ø
2Ø FOR A = 1Ø34Ø TO 1Ø623:REM STARTS LOOP
3Ø B = A - 32767:REM B = EACH CHARACTERS
  STARTING AND ENDING LOCATION
4Ø X = PEEK (B):REM X = LOCATIONS ASCII
  VALUE
5Ø IF X > 95 THEN PRINT CHR$(X); ", ":
  NEXT A:END:REM PRINTS A COMMA AFTER
  DATA
6Ø PRINT CHR$(X):REM PRINTS ASCII CHARACTER
  FOR EACH LOCATION
7Ø NEXT:REM LOOP BACK
8Ø END
```

REM-REM-REM-REM-REM-REM-REM-REM-REM-REM

REM when you write a program for the newsletter, please include as many REM's as possible. This will help everyone understand what you already know.

## Fill In Article

Or, my editorial. After I had the whole newsletter pasted together, I found this space empty. I decided to fill it with this.

Short programs and subroutines that make life easier for us will be greatly appreciated. Besides helping the membership they will also help me in organizing a good looking newsletter. Cartoons and drawings will also be appreciated. Please send all material to me at 88Ø Mellody, Lake Forest, IL. 6ØØ45.

Thanks,  
Dave Alpert





# northwest suburban apple users group

.. 1, NO. D

JUNE 1980

## THE HARVEST

```

*****
*                               *
*   FEATURE ARTICLE   *
*                               *
*****

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### National Computer Conference

-----  
 Anaheim California 1980  
 by Michael L. Robins

The N.C.C. was held May 19-22 with a Personal Computer Festival occurring on May 20-22. This article describes my experiences at the N.C.C.

I might as well start with the Apple /// products (yes this /// is correct), as that is probably what most people want to hear about. As you might have known, the Apple /// computer made its' debut to dealers the week of May 12th. This dealer demo was designed to show the dealers a new product as well as inform the dealers of new marketing and business strategies. APPLE was pushing the concepts of business machines and the concepts of selling a packaged product.

What is an Apple ///? Some people have told me it was a diskette used on the language system. (that, by the way was probably the most accurate description, considering the rumors that were running rampant). The Apple /// is APPLE COMPUTERS new business computer. The brains of this new machine is a 6502A microprocessor (operating at 2 MHZ). This new processor will achieve a 1.7 times increase in operating speed over the Apple II. It will incorporate 96K of RAM (using 16K chips), and will be expandable to 128K (using 32K chips). Note: When 64K RAM chips become available at a reasonable cost, the Apple /// can expand to 512K. Its large memory configuration is achieved through the use of a new memory management system developed by APPLE. The system comes with a built-in 5 1/4" disk drive (143K storage /16 sector formatted) and up to 3 additional drives may be daisy chained together using the built-in disk controller. Other hardware that comes built in includes a battery powered clock/calender, a 6-bit D to A converter for generating high quality audio (also an external output jack), RS 232C port (for general purpose serial communication and full handshaking - it's about time), SILENTYPE Printer port (used to interface with APPLES new SILENTYPE Printer), 4 A to D inputs to allow analog devices to be interfaced (joysticks, etc.). Also included with the Apple /// is a full upper/lower case keyboard including a 13 key numeric pad. The keyboard also includes an alpha-lock key in addition to a shift key. Auto-repeat is a feature on all keys. There is also four cursor control keys for easy cursor movement, as well as two "soft keys" that can be independently programmed. For the people who find that they need to add additional features, the Apple /// has 4 expansion slots. Although the connectors have virtually the same pinouts as the Apple II, due to F.C.C. regulations concerning R.F.I (radio frequency interference) the Apple II cards will not be sold as Apple /// peripherals.

There is 4k of ROM in the Apple ///. This is enough to do a self diagnosis upon power up, supply the code for a boot from the disk, and enough of a character set to print any error message needed. The rest of the operating system is all software including all keys on the keyboard. Although all new diskettes will be formatted with 16 sector, there will actually be 3 different patterns used with DOS, PASCAL, and SOS.

CONTINUED ON PAGE 2

## HARVEST VOL. 1-NO. D-----PAGE 2

FROM PAGE 1

Now for the best part, the graphics and text display. Included in the Apple /// package are an 80 column X 24 line black and white text page. You may also have 40 column color on color text (16 foreground colors on 16 different background colors). In HIRES you can have ultra HIRES black and white (560 dots X 192 dots) for graphs and charts. In HIRES color (280 X 192) you may have 16 colors or 16 shades of gray. Color can change on 40 dot boundaries. The video outputs of the Apple /// include black and white NTSC, color NTSC and color RGB (Red, Green, Blue) for high resolution color. All video signals along with all voltages are provided on a DB-15 connector on the rear on the unit. A separate R.F. modulator is required for a standard Television Set. The Apple /// also has a new operating system called "SOS" (pronounced sauce), which stands for Sophisticated Operating System. (SOS is supposed to be similar to UNIX). SOS takes care of such things as interrupt control (all devices can be interrupt controlled, including the keyboard), file management, CPU scheduling, device management, and memory management. The features and benefits are as follows:

- Controls system resource utilization and allocation.
- Provides a standard system interface for language and application, thus making software development easier and reducing program size.
- Flexible file system provides efficient data storage and access.
- Powerful utilities provide compact application access to all of Apple ///'s advanced capabilities.
- Allows custom configuration.
- Designed for easy expansion.
- Isolates user from the system functions.
- Provides common software interface.

If you think that all of these features described above will make the Apple /// incompatible with the Apple II software, don't worry. APPLE wasn't that silly to ignore all the software development that has gone into Apple II. They have also designed a software package which is an Apple II emulator. The software, when running, will make an Apple /// computer look like a 48K Apple II to the user. The emulator is capable of running Inteser or Applesoft programs.

More feature of the Apple /// include a new business BASIC. This (interpretive) BASIC includes things such as:

- Powerful formatting capabilities (PRINT USING)
- Longer names for variables
- Long Inteser (19-digit) Arithmetic
- Supports advanced program structure (IF-THEN-ELSE)
- Utilizes the full power of SOS for files, peripherals, and graphics.

Other languages that will be available include PASCAL, and FORTRAN. These languages can be moved from the Apple II to the Apple /// and all you'll have to do is to recompile them to set the full capabilities of SOS.

What might you ask is this whole thing going to cost? It should be noted that APPLE is now trying to sell their computers as a packaged configuration for business use, so shown below is one of their packaging schemes.

Apple ///  
12" Monitor  
VISICALC ///  
Mail Management Package  
1 disk drive (built-in)  
SOS

CONTINUED ON PAGE 3

FROM PAGE 2

HARVEST VOL. 1-NO. D-----PAGE 3

This will cost about \$4340.00. APPLE will also be releasing a word processing package for the Apple /// during the 4th quarter of this year. This cost may seem a little high but considering that this is a business system utilizing new technology, and enhancements, and not a hobbyist machine it's probably priced right. At this price, I think that the Apple /// is a super machine for business use. APPLE will be shipping a demo unit to its dealers next month. When all dealers have their demos, then they will start shipping in quantities for sales. It will probably take a few months before we see real production quantities, and enough to meet the expected demand.

By the way -- APPLE will not be letting us Apple II owners down. They plan to keep supporting the Apple II for at least 5 more years so we don't have to go out and buy an Apple /// right away. APPLE will be releasing some new products for the Apple II.

DOS 3.3 is a new product that APPLE will be releasing in June or July. The basic difference between 3.2.1 and 3.3 will be that DOS 3.3 will be a 16 sector DOS that will increase the disk capacity to 143K (like Pascal), instead of the current 116K. As well as increasing the disk capacity they will also be fixing many of the bugs that existed in the previous versions of DOS. Included in this new package will be a new DOS manual, the diskette itself, and new P5 and P6 chips that enable the disk drive to handle the new format. These chips are inserted on the disk controller board and allow it to boot the new 16 sector format as well as be downward compatible to the 13 sector format. Also included in the package will be a new single disk copy program as well as a program to allow the transfer of any file from one disk to another (text files included). There will also be a conversion program that will allow utilization of old 13 sector formatted diskettes. The cost of this package will be \$60.00.

APPLE talked about a new release of PASCAL for the Apple II as well as a release of a subset of the new business basic for the Apple II. If you have the extended warranty from the Apple, you will get the new release free. If you don't then the new release will cost you.

#### OTHER PRODUCTS SHOWN AT THE NCC WERE:

##### INTEGRAL DATA SYSTEMS

I.D.S. showed their new member to the Paper Tiger family, The Paper Tiger 460.

Features include:

- Proportional Spacing
- Horizontal and Vertical Tabbing
- Staggered 9 wire head
- Bi-directional printing
- Selectable justification of text
- Approaches letter quality
- Six or 8 lines/inch spacing
- Prints multipart forms (up to 6)
- Serial or Parallel interface
- Compatible with 440G control codes
- Long life cartridge ribbon
- \$1295.00 + \$99.00 graphics option which also includes a 2K buffer.

On the outside it looks like 440 with a couple of extra buttons. On the inside it has a different print head and a different ribbon.

It should be available late summer or early fall.

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FROM PAGE 3

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## OKIDATA

## OKIDATA printer 8300

- Approaches letter quality
- Utilizes a 24 wire print head
- Pica or Elite fonts
- Uses block hires
- Is in the \$1000.00 range

This printer should be released early next year.

Okidata also showed the u81, u82, and u83 printers.

Features of the u82 are:

- 80 column printing
- 7 wire print head
- Bi-directional printing - 80cps
- Block graphics capability
- 9X7 characters
- 5,10,16.5 cpi
- Expanded print

Features of the u83 are:

- 136 column printer
- Block graphics capability
- 7 wire print head (9 X 7 characters)
- Bi-directional printing - 120 cps
- 5,10 characters per inch
- Expanded character set

Okidata released a new product that allows HIRES dumps from the Apple II and utilizes the u80 printer. You can dump the entire HIRES screen, dump a portion of the screen, choose from inverse or normal, and choose from six picture sizes. They are also selling the OKi-Adapter which by the insertion of a single jumper will allow software control over text and graphics. The combined package will sell for \$74.95 complete with installation and operating instructions.

## ANADEx

Anadex was showing their DP-9500 & 9501 Alphanumeric/Graphic printers.

Features include:

- Serial, Parallel, or Current Loop
- Centronics plus compatible connector
- 9 wire print head
- 150 to 250 cps
- Expanded print
- Paper entry through bottom or rear
- Top of form control
- True underline capability
- 11x9, 9X9, 7x9 character fonts with true descenders

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**ENTRONICS****Model 737****Features include:**

- 10 and 16.7 characters per inch
- Proportional spacing
- Condensed and elongated print

**MALIBU**

Malibu was again showing their model 165 printer

**Features include:**

- 165 cps dot matrix speed
- 90 cps letter quality speed
- Full graphics
- Bi-directional printing
- Expanded print, true lower case descenders, and underlining
- Graphics printing with 60X72 dots/inch
- Programmable character sets
- Apple Interface with:

3 fonts supplied on the card

Multiple pitches

Proportional spacing

HIRES graphics dump

Expanded print

Compatible with all languages (Integer, Applesoft, and Pascal)

**LOBO**

Lobo showed the new ST 500 (3.2 M Bytes of storage on an 5 1/4" hard disk) \$4295.00. It should be available in the fall.

The Lobo Drive utilizing the SA 1000 Hard Disk drive (5 M Byte) should be available in July.

**COMPUCOLOR**

Compucolor showed a word processing system in color. The colors are used for underlining and text moves.

**NEC**

NEC computer PC 8001

Should sell for about \$995.00 (32K) and probably will compete directly with the Apple II and III.

**Features include:**

- 4 color graphics
- 160 X 100 resolutions
- RGB monitor for \$1200.00
- Green phosphor \$about \$250.00

CONTINUED ON PAGE 6

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HARVEST VOL. 1-NO. D-----PAGE 6

- Runs CP/M
- Z-80 (4-MHZ) microprocessor
- Composite video monitor \$450.- \$500.
- 40,80, or 72 X 24 or 22 lines
- CORVUS interface available for hard drive
- Two 5 1/4" drives with their own Z-80 controller

**COMPRINT**

COMPRINT showed a new graphicsa option for their printer.

**MOUNTAIN HARDWARE MUSIC SYSTEM****Features include:**

- 16 voice Digital Synthesizer
- Stereo Output
- Computer Simulation of real instrument sounds
- Polyphonic - chords and sequences
- Fully programmable waveform, envelope, amplitude for all 16 voices
- Graphics input of sheet music using standard music notation
- On board interrupts
- Print-out of sheet music with a graphics printer
- Lightpen capability
- Uses its own operating system

**SOFTWARE WILL INCLUDE**

Graphical music editor

Entry will be by lightpen, paddles, or keyboard

HIRES representation of actual sheet music

Instrument definitions - preprogrammed waveforms and timbres simulating real instruments

HIRES animated music on screen while music plays

Synchronization pulses to control other programs which may operate in foreground while music plays in background

The Music System will come with presets for trumpet, piano, harpsichord, etc, as well as with pre-entered songs for immediate play.

The Music System was modeled after a real music synthesizer. The system contains 2 boards. One of these boards is the controller for the light pen and for interrupts, and the other is the actual music generation board. When the board supplies the interrupts it uses DMA to shorten processor time thereby making the board more efficient. The price for the Music System is \$545.00 and should be ready for delivery at the end of May.

**MOUNTAIN HARDWARE EXPANSION BOX**

- Duplicates Apple mother board
- Has its own heavy duty power supply
- Access is through a simple poke command
- Supports slot 0
- Approx \$650.00 available in July

Bill Inglish from Mountain Hardware said that he would be willing to come out to our meetings and talk to the group about the new products in the next couple of months.

Mountain Hardware has also made many improvements to the Super-Talker to make it easier to use and have redesigned their software to compress data further to allow more disk storage.

CONTINUED ON PAGE 7

FROM PAGE 6

If you have a version of the software from Mountain Hardware and you are interested in setting any of their new software you may send in the original diskette and get the disk updated for free.

This article describes only a small part of this country's largest computer conference. Over 90K people attended the show and 6 exhibit halls were needed to display all of the products. Included in this conference were exhibits from the largest computer manufacturers to the smallest vendor. This definitely is the most impressive of all the computer shows. Next year the NCC show will be held in Chicago, the week of May 4, and I suggest that all attend, as it is worth the cost of admission.

```

*****
*                                     *
*                                     *
*   PRIZES! PRIZES! PRIZES!         *
*                                     *
*                                     *
*   CLUB CONTEST                     *
*                                     *
*                                     *
*   COMMENCES                       *
*                                     *
*                                     *
*****

```

Got your attention!!

The Club's first contest is underway. In order to get your programs into the club library, we are giving you the golden opportunity to WIN, WIN, WIN!

The rules are simple:

### THREE CATEGORIES-

- 1) Games
- 2) Utilities
- 3) Everything and anything else

### PRIZES-

\$100 grand prize for best program overall  
 \$ 50 prizes for best program in each category

PLUS the next top five winners in each category will receive a 'BEST OF THE CONTEST' diskette

ADDITIONAL prizes to be awarded as donated by local dealers

ONLY one prize per contestant per category although multiple entries accepted

Programs will be judged on originality, cleverness, usefulness and function.

Programs will become part of the club library.....with commercial rights reserved to the author.

Judging will be done by the Program Chairman and two associates to be named. Any member in good standing (including the Program Chairman) is eligible to participate. This contest Committee will present the prizes at the annual dinner scheduled for February 1981.

Programs may be submitted at club meetings, at my house (650 Pompano, Palatine) or by mail (on disk or tape only) with media returned to the author--or by modem.

DEADLINE is December 31, 1980

Ken Rose

## HARVEST VOL. 1-NO. D-----PAGE 8

## CLUB NEWS

## CLUB OFFICERS

President: Don Fuller-----991-6868  
 Vice Pres: Mike Robins-----593-2709  
 Sect/Tres: Bill Woelbeling--934-8631  
 Librarian: Mike Rose-----359-4306  
 Asst. Lib: Julian Vassay  
 Prog. Cn: Ken Rose  
 NL Staff: Jim Nowak

Club Addresses:

MEMBERSHIP, etc--1136 E. Patten  
 Palatine, Il. 60067

NEWSLETTER-----Dave Alpert  
 880 Melody  
 Lake Forest, Il. 60045  
 312-295-6078  
 SOURCE#-TCA 640  
 MODEM 312-295-6926

BULLETIN BOARD---312-991-6245 daily  
 as available and after  
 10:30pm local time

NSAUG NEWSLETTER is published by the Northwest Suburban APPLE Users Group and edited by Dave Alpert. Contents may be reproduced by other APPLE clubs for their newsletters or bulletins except where specifically reserved by the author. Permission to copy these articles may be obtained by writing the author through our editorial offices. Please indicate THE HARVEST as the source of any material reproduced. Newsletter exchange is welcome.

## MEETING SCHEDULE

Regular Meetings      Sat. June 7  
                          Sat. July 12  
                          Sat. August 24  
                          Tentative

Officers meetings are held at the President's home on the Tuesday evenings following the regularly scheduled meetings starting at 7pm.

Regular meetings are held at the Schaumburg Library, 100 Library Lane, Schaumburg, Il.

## JUNE AGENDA

10:00-10:30 Opening Remarks  
 Ken Rose

10:30-11:15 Demonstration of Data  
 Factory--Stan Goldberg

11:15-12:00 The APPLE /// Slide  
 Show

12:00-12:55 Report from the NCC  
 Questions and Answers  
 Mike Robins  
 Harlan Felt

12:55- 1:00 President's Report  
 Don Fuller

## THE PREZ SEZ

Hats off and a big round of applause to Pfeiffer and to Tom and Mary Roseman for their offerings at the May meetings. Talent??? 'NSAUG' has it!!! If you weren't there and didn't receive the handouts, see if someone will let you make a copy or see the Librarian to borrow a copy. This information should be in everyone's library. Jim's discussion about pointers and his handout will come to be a classic. Ted and Mary's updates to FILE CABINET are a must for everyone who uses this versatile program.

An outstanding meeting...Thanks again

The Schaumburg Library has been acquired for meetings for the second half of the year.

SOURCE users: After an exorbitant bill and a couple of letters to the Source, I have found out---1. You may be building files unawares...2. If the system crashes while you are on or you terminate abnormally, you will be charged for block storage. Solutions drassed out of Source personnel are: 1. Check to see if you have a file before signing off and scrub it if you don't intend to pay storage. 2. Keep track your time and billing charges (complain if bill is out of line). 3. If you terminate abnormally or the system crashes, get back as soon as possible and correct any goofos that may have been made. (Use their toll-free number if necessary!)

Don



## SOFTWARE REVIEW

P.I.T.S.

by Don Fuller

Using a language card (read PASCAL) and have a D. C. Hayes Micromodem? Want to use the modem without going into BASIC? Check out P.I.T.S (Pascal Interactive Terminal Software) by Peripherals Unlimited, Inc.

## Features:

- \*Transmit disk files to other systems
- \*Copy received data into memory then to disk
- \*Simultaneous printing while connected (with printer attached)
- \*Variable screen width
- \*Switchable 110 or 300 baud
- \*Leave and return program while connected

## Function Menu

- H-turns copy on
- F-turns copy off
- S-saves copy buffer to disk
- C-clears buffer, does not change copy status
- P-toggles printer status on/off
- O-ends program, keep phone connection
- D-duplex toggle between half and full
- B-baud rate toggle between 110 and 300
- ESC-sends escape character (for function menu)

## User comments:

Excellent program except...at this time, the user has to manually input the number for dialing and there is no auto answer feature for the program to pick up the phone (if you are talking to someone and want to turn on the modem).

The 'COPY' feature is excellent! There is automatic warning if the buffer is about to overflow so that you can stop and save to disk without losing data. See the documentation for comments on this.

Recommended. Since PASCAL is so easy to read and modify, this program can be personalized for the end users desired features.

Price \$34.95

## BLACK AND WHITE OTHELLO

by J. F. Wilson

Othello, as copyrighted in 1978 by APPLE COMPUTER, is a fun game with strategies at several levels of play. The program looks awful on a black and white TV set or monitor. To improve the appearance make these modifications:

```

80 COLOR= 7-PL#7: (rest of line
   same as before)
200 GR: COLOR=8: FOR N=4 TO 35:
   VLIN 0, 39 AT N: NEXT N:
   COLOR = 5:(rest of line
   same as before)
530 (change) A$="WHITE BLACK "
   (the single spaces after each
   word are important)
580 the end of this line should
   read:
   IF N=0 THEN A=A+1: IF N=7
   THEN B=B+1: NEXT V,H

```

## APPLE ORCHARD'S SHAPE DESIGNER

THE APPLE ORCHARD Volume 1, No. 1 contains: Shape Designer program on pages 40 through 45. To make it run a little better make these modifications to the Assembler:

```

630 NORMAL:TEXT
710 PRINT D$; "BSAVE "; SHAPE$; ",
   A"; START; ", L"; SH-START

```

The program as published used a length of (SH-1)-START. That length omits the zero turnoff for the last shape in the table. It can fill your screen if you load it up around \$8000.

## WANT ADS

APPLE II appointment book program from club member Guy Lyle. Call 438-7941 evenings for more information.

Heuristics Speech Lab 20a-1. Almost never used-\$125-Dave Alpert 295-6078

Mountain Hardware Rom+, Rom writer and two chips to program-retail value \$435-will sell for \$350 Dave Alpert 295-6078

Advertisers wanted. No charge to club members. Send copy to editor for inclusion in next issue.

## HARVEST VOL. 1-NO. D-----PAGE 10

Dear Dave,

Here's a short program you may want to include in the next newsletter. It allows you to modify one track on a disk to continue the catalog. Normally you are restricted to 84 filenames in a catalog but, after running this program, you can have as many as 181 files on the disk. I ran into this problem while trying to save some spelling lists for a school, the disk was only half full but the directory track (track 17) was full so we kept getting a disk full error.

One must use caution to specify a track that currently is not in use on the disk. Probably it would be best to just initialize a new disk, run this program, then save your files. Of course there are some good Disk Map programs available that would do the trick as well.

Keep up the good work on the Newsletter.

Sincerely,  
Tim

# LIST

```

1  REM ROUTINE TO SET UP CATALOG
   TO HOLD 181 FILENAMES.
   DISK MUST HAVE ONE TRACK
   THAT IS ENTIRELY EMPTY.
2  REM BY T. HARTLEY
   3268 COACH LANE #2A
   KENTWOOD, MI 49508
   (616) 942-8987
3  REM FEEL FREE TO DISTRIBUTE
   THIS PROGRAM
100 INPUT "WHICH TRACK DO YOU WA
   NT TO USE? ";TR
110 GOSUB 900: REM
::: REM SETS
   UP SHORT MACHINE LANGUAGE
   PROGRAM
120 CALL 45047:
::: REM READS
   VTOC
122 POKE 46067 + 4 * TR,0: POKE
   46068 + 4 * TR,0:
::: REM
   RESERVES SPECIFIED TRACK IN
   VTOC
125 CALL 45051:
::: REM RESAVES
   VTOC
150 POKE 47092,1: POKE 47084,17:
   POKE 47085,1:
::: REM GET
   SET TO READ TRK 17, SECT 1
160 FOR T = 12 TO 1 STEP - 1:
   :: REM DO SAME FOR ALL SECT
   ORS IN EXTRA CATALOG TRACK

```

```

165 POKE 47084,TR: POKE 47085,T:
   POKE 38402,T - 1
170 CALL 768
180 NEXT T: REM
185 POKE 38401,0: POKE 38402,0: POKE
   47085,0:
::: REM LEAVE LAST
   SECTOR WITH NO LINKS (0,0)
190 CALL 768
199 END :
900 REM MACHINE LANG. SUBROUTINE
905 FOR K = 768 TO 788: READ A: POKE
   K,A: NEXT : RETURN
920 DATA 169,0,141,235,183,141,
   240,183,169,150,141,241,183,
   169,183,160,232,32,181,183,9
6

```

Dear Tim,

I would like to thank you for your continued INPUT to The Harvest even though you have moved to Michisan. If you keep up the good work in submitting articles for the newsletter, I will be able to keep up the good work getting it together each month.

I understand that you and your missus have opened Hartley Software to develop all sorts of programs. I also understand that you have written all sorts of educational programs that work with your APPLE-SPELLER black box. Combined with your Skilldrill, Spelling Test, Letter Recognition and Word Family programs students are able to advance quickly from one module to the next. I think your concept of auditory input and visual stimulation is beneficial to keeping student attention. These programs should prove beneficial to students with access to an APPLE.

Unfortunately, Harvest policy does not allow for advertising at this time. I will be glad to pass along this information to any member contacting me. I will also print your address in the newsletter in case anyone wants to get in touch with you. Your address is:

HARTLEY SOFTWARE  
3268 Coach Lane  
Kentwood, Michisan 49508

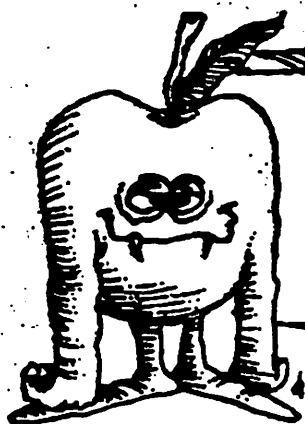
isn't it?

I guess they could call you at 616-942-8987, couldn't they?

Well I am sorry about not being able to run an ad (I know you didn't request to), but I'll do my best to get the word around.

Keep those programs coming,  
Sincerely,

Dave



# NORTHERN ILLINOIS APPLE USERS GROUP

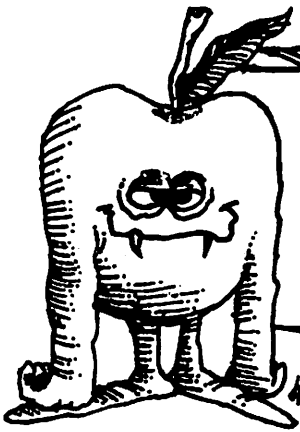
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## THE HARVEST

June 1981

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JUNE 1982

## THE HARVEST

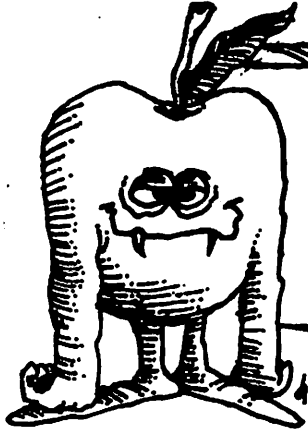
\$1.50

### COMING MEETING DATES

June 19  
July 17  
August 14

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# NORTHERN ILLINOIS APPLEUSERS GROUP

\$2.50

VOL4-NO. 9

## THE HARVEST

JUNE/JULY 1983

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Pres Says...

The show went very well. It was not anywhere near as large as we were led to believe, but the number of people which attended was exceptional. The NIAUG booth staff handed out about 1200 of the new NIAUG INFO PACKETS. We are waiting for the results now. All in all, the show was certainly worth the \$10 price of a 1 day ticket. I just feel sorry for the people who purchased 4 day passes.

Our booth was very well done, and showed to all the attendees just what a quality users group was like. Thanks to Chris Otis for his efforts with the booth, as well as coordinating the entire booth staff. Without Chris, we couldn't have done it. Well, now that the SHOW is behind us, on to new and exciting happenings.

We are in the planning stages of the FIRST ANNUAL NIAUG PICNIC. We are looking at a Sunday in late July or early August for the outing. Details will be forthcoming in an interest/reservation letter. All member families are invited. You must show your membership card to obtain NIAUG supplied hot dogs or hamburgers. There may be a 1 or 2 dollar charge per person, we are looking into the costs and details. More later.

The ANNUAL PROGRAM CONTEST will be managed by the LIBRARY SIG. Thank you Joe Zeinz, and all of your people. I know you will enjoy the fun. Anyone interested in assisting with the APC, please contact Joe Zeinz.

The officers are reviewing the proposed BY-LAWS for the UG. A final proposed set will be published in the JULY Harvest. Time will be set aside to ratify the BY-LAWS during the JULY 14, 1984 meeting. BE SURE TO ATTEND.

Last month, due to some last minute shuffling in the Harvest paste up, a paragraph of my monthly column lost something, and I think it bears repeating.

\*\*\* START OF REPRINT \*\*\*

A number of members have suggested that NIAUG establish sub-groups to hold general meetings in other locations. IE: North Shore; Indiana; Southwest Suburban. All the officers, myself included, are interested in this prospect. I think that this concept should be looked at very closely. The UG has the necessary funds and cash flow to pay for additional major meeting facilities. Initially I see only 1 major and possibly insurmountable problem with this proposal. Who among you would be willing to coordinate the Sub-Group? The current volunteers have all we can do to manage 1 general meeting per month. We will continue to perform all the other duties but we must have a SUB-GROUP COORDINATOR to arrange and plan the other general meetings. One coordinator for each separate meeting location. Please step forward and volunteer. We can give you everything you will have to do, even supply you with the speakers for the meetings; only you will have to be the one to do the work. Figure about 4 hours per month outside of the monthly Planning Meeting, plus the time at the remote meeting.

\*\*\* END OF REPRINT \*\*\*

Over the next several months, we will be experimenting with new meeting formats. Let us know what you think. We will also be setting up a BIG BROTHER function for new members. You will be contacted to determine your willingness to be a BIG BROTHER. Give it a try. You probably would have wished for a big brother when you first joined.

We want NIAUG to be a USERS GROUP, not a GROUP OF USERS. 'USER' is a 4 letter word. Be a user, not a USER. Volunteer. Help make NIAUG something YOU can be proud of.

Rob Stewart, CDP  
President

NIAUG RENEWAL QUESTIONS

by Joe Zeinz, CDP  
Club Librarian

With the annual membership renewals, there were several requests and questions. Below are only a few of these in which I will try to answer.

Q. Request more programs in the "Harvest"?

A. This club is a volunteer organization and volunteers are the ones that supply the "Harvest" with programs and articles. So, if you have a favorite program share it with us. Also join the Library SIG and have a say in what goes into the NIAUG Disk Library.

Q. Can documentation be improved on the NIAUG programs?

A. These programs are from NIAUG members, the IAC and other user clubs. This is public domain software, which runs as is. I hope you as NIAUG members, will spend the extra time to document your programs so others can benefit from your efforts. This also reflects on the Club, so lets be proud of your work. Programs will have a more favorable response when it is sophisticated program which no one knows the capabilities, because of the lack of documentation.

Q. Can disks from the library be made available for \$3.50 or trade a blank disk plus \$1.00?

A. The Library disks have always been available for \$3.50 each. The club does not accept trades for blank disks because we will not be able to control the quality of these disks. The club is currently using Verbatim double sided double density diskettes. These disks are guaranteed against recording media defects, so if a bad disk is encountered it can be replaced.

Q. Can the contents of the IAC Disk of the month be published in the "Harvest"?

A. The club tries to publish the Catalog listing of each new disk that is added the NIAUG Library. This does include the IAC disks, but only if the Librarian/Library SIG

deems it worthy of it.

Q. Where is an index to the Paper Library and how does one gain access to it?

A. The only Index currently available is Disk #37. You can scan the disk for the articles you wish to review. There is a NIAUG Reference Number for each article. then at the monthly meetings you give this number to the Paper Librarian. He/She will then loan the article to you until the next monthly meeting. The Paper Librarian along with the Library SIG is trying to update the index and also trying to come up with a better way to make this information accessible. Any suggestions?

If you have any questions or comments about the club let us know. Search out the officers at the meetings, call the information number, or write us a letter.

#### Program Contest

by Joe Zeinz, CDP

The 4th Annual NIAUG Program Contest is off and running. This year the contest will be sponsored by the Library SIG. Entries will be accepted at the meetings or by mail (NIAUG Program 60090). All entries will become part of the NIAUG Disk Library. Also all submissions to the library since the last contest are also eligible-only a submission form need be submitted.

The Program Contest deadline for entries will be the October meeting. Prizes will be awarded at the December meeting. Last year prizes ranged from a Hayes Micromodem II to four disks from our very own Disk Library (a total of 21 prizes + 4 cash awards). There was also cash awards for the best program of each category.

The contest entries will be judged by categories, depending on the submissions. We are planning for the following categories: Games, Business, Education, Utility and Graphics.

Submissions should be on diskette or tape and include a written description of the program(s) and necessary instructions for their execution. If there is any required

hardware, this must be noted on the entry form. Programs will not be docked points for lack of instructions, but programs which bomb may incur the wrath of the judges, whose decisions will be final.

Show us your latest efforts by submitting those programs, which could be a winner.

You can't win if you don't enter.

### CAREER PLANNING?????

by Terry Tufts

Have you decided on a new career path, have you decided to go back to work after raising a family or perhaps you wish to change your career? How can you get experience in these new endeavors or even better how can you make contacts in the various fields that interest you. Well read on and I will reveal the secret.

Many people realize that they have to have to have prior experience in a particular field to have an edge when competing for a job, especially if they are changing fields. They also know that knowing someone in a decision making position or having a contact is also very important. Well the task is to find out how to get this all important experience and to make these contacts. Well it is quite easy. Lets look one method.

Suppose you have chosen to get into public relations. You think you have an outgoing personality and are a good communicator and would like a non threatening way to prove that you can handle such a job. You have no previous experience but you are sure that you could handle such a task. Who would you go to for such a chance if you have no contacts and no rich uncle to take a chance on you?

Well the answer is right before your eyes. Talk to your NIAUG officers. The pay is very small but the experience is as good as you can get anywhere. You will have a chance to try out your own ideas, exercise your own judgement with as little risk as it is possible to have. After all if you get fired you don't have to put it on your resume (besides who has ever heard of getting fired from a volunteer job). You will have the club officers behind you and some of the clubs resources to experiment with. With this kind of arrangement you will have a hard time failing and you will get a good chance to see if your talents match your interests. Along the line you will make contacts with real live money making businesses and be able to realize oportunities that you didn't know exist. You can do this all on your own time without compromising your present position. Who could ask for a more fool proof plan? Matter of fact, look at any of the more advanced books in career planning and job hunting and you will see this is exactly what they recommend.

Well I have revealed the secret, its up to you to develop your plan and put it into action. If you are interested in a career in education, computers, writing, advertising, public relations, sales, public speaking and many others give your executive a call and tell us about your goals and we will give you activities that will develop your talents and give you concrete experience. We are an equal opportunity group and will give anyone a valuable chance to develop their career goals no matter if you are a student, someone in a dead end job or a housewife planning to go back to the job market. Think about it. The method is proven, all it takes is a little of your initiative.





Reprinted from the "SCARLET LETTER" February 1984 newsletter of the Big Red Apple Club, Norfolk, Nebraska.

\$C000

## VECTORS & POINTERS

by David Burroughs

For the hearty souls who wish to "POKE" around in the old Apple to really unleash some new power, save some programing time, or just amaze less experienced Apple owners with some sneaky new program, here are a few handy location I have found in the Apple.

**\*\*NOTE\*\*** The labels are compiled from several sources including my own program usage so may differ from other more established sources.

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### PAGE ZERO LOCATIONS

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LOCATION		LABEL	EXAMPLE OF USE
HEX	DECIMAL		
20	32	WNDLFT	Sets left column of text window. Try putting labels on left, then set WNDLFT to the right of longest label. They will stay in place until WNDLFT is reset to 0.
21	33	WNDWDTH	Width of text window. 1 to 40 from Applesoft. Poke 33,33 makes editing Applesoft much easier. Poke 33,79 gives you 80 column listings in Integer Basic. Warning- over 40 will destroy an Applesoft program in its natural location.
22	34	WNDTOP	Top line of text window. Use one or more lines of headers then change WNDTOP down. The headers will stay up there undisturbed.
25	37	CV	Cursor Vertical position. Poke then Call to VTAB in Applesoft interpreter.
30	48	COLOR	POKE 48,(COLOR NUMBER)*17
4A,4B	74,75	LOMEM	LOMEM for Integer Basic only
4C,4D	76,77	HIMEM	HIMEM for Integer Basic only
4E,4F	78,79	RNDL,RNDH	A 16 bit random number field available for PEEKING
67,68	103 104	PRGML PRGMH	These are Applesoft program start locations. POKE before loading to relocate an program. If your program tends to run into Hires Page 1 use a short loader program to put the main one above Hires! POKE 104, 96 makes next program load starting at \$6000. Lots of room up there.
73,74	115,116	HIMEM	Applesoft HIMEM

75,76	117,118	LINE#	Current line number of Applesoft
AF,B0	175	PENDL	End of Applesoft program. Poke with larger number to let shape tables, graphics page, or machine language program just tag along behind a Applesoft program during SAVE and LOAD.
	176	PENDH	
CA,CB	202	PGMIL	Integer Basic program start pointer
	203	PGMIH	
CC,CD	204	PENDIL	Integer Basic program end pointer
	205	PENDIH	
D8	216	ERRFLG	Once an ONERR GOTO has be executed this flag is set to a high value. Poke with less than 128 to turn it off, over 128 turns back on.
DA,DB	218	ERRNL	If error occurs during Basic program run the line causing the error is stored here. (PEEK (219)*256)+(PEEK (218)) yields line number
	219	ERRLNH	
DE	222	ERRCODE	Code for type of error that occurred stored here PEEK (222) yields code below: 0 NEXT without FOR 1 LANGUAGE NOT AVAILABLE 2 OR 3 RANGE ERROR 4 WRITE PROTECTED DISK 5 END OF DATA 6 FILE NOT FOUND 7 VOLUME MISMATCH 8 I/O ERROR 9 DISK FULL 10 FILE LOCKED 11 SYNTAX ERROR(DOS COMMAND) 12 NO BUFFERS AVAILABLE 14 PROGRAM TO LARGE 13 FILE TYPE MISMATCH 15 NOT DIRECT COMMAND 16 SYNTAX ERROR (APPLESOFT) 22 RETURN WITHOUT GOSUB 42 OUT OF DATA 53 ILLEGAL QUANTITY 69 OVERFLOW 77 OUT OF MEMORY 90 UNDEFINED STATEMENT (BAD BRANCH ERR) 107 BAD SUBSCRIPT 120 REDIMENSIONED ARRAY 133 DIVISION BY ZERO ERROR 163 TYPE MISMATCH 176 STRING TOO LONG 191 FORMULA TO COMPLEX 224 UNDEFINED FUNCTION 254 BAD RESPONSE TO AN INPUT 255 BREAK (CONTROL -C HAS BEEN STRUCK)

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 PAGE 3 LOCATIONS
 

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LOCATION HEX	DECIMAL	LABEL	EXAMPLE OF USE
3D0	976	DOENTRY	Contains a JMP to DOS warmstart. Does not discard the Basic program or any DOS variables
3D3	979	DOSCOLD	JMP to DOS coldstart. Clears and resets everything.
3D6	982	FMNGLOC	JMP to DOS file manager subroutine
3D9	985	RWTSLOC	JMP to DOS RWTS subroutine
3DC	988	IPFMGRLOC	Subroutine that locates Input Parameter List to allow user to set up before call to file manager.
3E3	990	IPRWTSLOC	Subroutine to locate and set up Input Parameter list for a RWTS call.
3EA	1002	INCPTSCON	JMP to reconnect DOS intercepts to keyboard and screen data streams
3EF	1007	BRKVLOC	JMP to location that handles BRK instruction.
3F2	1010 1011	RSTVL RSTVH	LO/HI byte pair to handle reset vector. This is the locations to change to get programs like Magic Window that you can't reset out of or many other possibilities such as reset to reboot.
3F4	1012	PWRUPV	Flag for power up. Contains a exclusive or compliment of reset address with \$A5. This is to check on reset for power up. If you change the reset vectors then take the value you placed in \$3F3 (1011) and Exclusive or with \$A5 then store the result in \$3F4.
3F5	1013	&HNDLR	JMP to ampersand handler routine.
3F8	1016	CTRL-YHNDLR	JMP to the monitor's Control-Y handler.
3FB	1019	NMIHNDLR	JMP to non-maskable interrupt handler.
3FE	1022 1023	NMIVL NMIVH	LO/HI byte vector pair for JMP when NMI occurs.

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 MOTHERBOARD I/O LOCATIONS
 

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C055	-16299	PAGE2	Selects page 2 (text or graphics)
C054	-16300	PAGE1	Selects page 1 (text or graphics)

C053	-16301	GP/TXT	Selects text and graphics mix ( 4 lines text at bottom of graphics page.)
C052	-16302	GPFS	Selects full screen graphics
C051	-16303	TXT	Selects text mode. Either page
C050	-16304	GR	Selects graphics mode (HIRES or LORES)
C056	-16298	LORES	Selects LORES (still needs GR also)
C057	-16297	HIRES	Selects HIRES (still needs GR also)
C058	-16296	ANO-0	Turns Annunciator 0 off
C059	-16295	ANO-1	Turns Annunciator 0 on
C05A	-16294	AN1-0	Turns Annunciator 1 off
C05B	-16293	AN1-1	Turns Annunciator 1 on
C05C	-16292	AN2-0	Turns Annunciator 2 off
C05D	-16291	AN2-1	Turns Annunciator 2 on
C05E	-16290	AN3-0	Turns Annunciator 3 off
C05F	-16289	AN3-1	Turns Annunciator 3 on
C061	-16287	PB0	Peek reads pushbutton - if pressed contains over 127. If less than 127 pushbutton is not being pressed
C062	-16286	PB1	
C063	-16285	PB2	
C040	-16320	STROBE	Strobe at pin 5 of Game control jack. A peek gives one one-half microsecond pulse. A poke will trigger the strobe twice.
C000	-16384	KEYIN	If over 128 a key has been pressed. (PEEK (-16384))-128=Key pressed.
C010	-16368	KEYFLAG	POKE (-16368),0 to reset keyboard flag. Must follow a peek to -16384
C020	-16352	CASSND	Peek or Poke causes click at cassette jack.
C030	-16336	SNDOUT	Peek or Poke causes click at speaker jack.
C060	-16288	CASIN	Cassette data input
C064	-16284	GCO	Game control analog inputs (use a peek to these locations similar to PDL (X))
C065	-16283	GC1	
C066	-16282	GC2	
C067	-16282	GC3	
C070	-16272	CLEAR	ANALOG CLEAR Resets all four Game Control input timers.

Reprinted from the "SCARLET LETTER" March 1984 newsletter of the Big Red Apple Club, Norfolk, Nebraska.



# EXPLORING APPLE DOS

## PART IV - A TOUR OF DOS SUBROUTINES

by David Burroughs

In this final part we will take a tour through some of the main and useful subroutines in DOS 3.3. There are many opportunities for us to do some very helpful PEEKs, POKEs, and CALLs to DOS from our BASIC programs. Machine language programmers already use a lot of the resident DOS routines for efficient disk I/O.

Before we get into DOS itself I am going to bring up one handy location just below DOS. That is the DOS buffer area. For machine language subroutines over 200 bytes in length (too large for the old standby location of \$300), there is another "safe" place to tuck it out of the way. We can put it between DOS and its buffers. Load the routine in low memory and then move it up where the top of the routine is below start of DOS at \$9D00. Next change the buffer pointer at \$9D00 to point below your routine, adding 38 extra bytes for the file name and link fields. Now do a DOS coldstart by way of page 3 vectors (3D3G, Return from monitor). DOS will not do its buffer work below your routine and since it is in DOS it is safe from your normal program. By the way, this seems to be a great opportunity to use a EXEC file to do all that housekeeping.

\*\*\*Note\*\*\* I'll mark places with asterisks that I find especially useful.

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### LOCATION WHAT IT DOES AND/OR COMMENTS

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#### CONTROLLER CARD ROM

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C600-C65B First disk I/O code executed during boot

Sets everything up to read Trk 0 Sec 0

C65C-C6FA Reads Sector Headers

C683-C6A5 Handles Address Headers (locates correct sector).

C6A6-C6FF Handles Sector Data and stores Boot 1 at \$801

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#### BOOT 1

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801-81E Set up to read Boot 2 and RWTS into its proper location.

81F-838 Set up to read correct sector and call ROM read sector routine (C65C).

839-8FF Set up for and go to Boot 2 when Boot 1 is done.

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### DOS 3.3 MAIN ROUTINES

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#### 9D00-9D0F Address Constants Table

LOC.	CONTENTS	USE
**** 9D00	9E81	Address of first DOS buffer file name field
9D02	9EBD	Address of DOS keyboard intercept
9D04	AA75	Address of DOS video intercept
9D06	AA93	Address of primary file name buffer
9D08	9F51	Address of secondary file name buffer
9D0A	AA60	Address of LOAD range length parameter
9D0C	9D00	Address of DOS LOAD address - 9D00 normally
9D0E	B5BB	Address of file manager parameter list

## 9D1E-9D54 COMMAND ADDRESS TABLE

LOC.	ADDR.	COMMAND	LOC.	ADDR.	COMMAND
9D1E	A54F	INIT	9D3A	A298	APPEND
9D20	A413	LOAD	9D3C	A281	RENAME
9D22	A397	SAVE	9D3E	A56E	CATALOG
9D24	A4D1	RUN	9D40	A233	MON
9D26	A4F0	CHAIN	9D42	A23D	NOMON
9D28	A263	DELETE	9D44	A229	PR#
9D2A	A271	LOCK	9D46	A22E	IN#
9D2C	A275	UNLOCK	9D48	A251	MAXFILES
9D2E	A2EA	CLOSE	9D4A	A57A	FP
9D30	A51B	READ	9D4C	A59E	INT
9D32	A5C6	EXEC	9D4E	A331	BSAVE
9D34	A410	WRITE	9D50	A35D	BLOAD
9D36	A5DD	POSITION	9D52	A38E	BRUN
9D38	A2A3	OPEN	9D54	A27D	VERIFY

9D56-9D61 Address vector table to entry points of Active BASIC. Each time the active BASIC version changes (i.e. you do an FP or INT) the appropriate vector address image is copied to here from below.

LOC.	ENTRY VECTOR TO:
9D56	CHAIN entry
9D58	RUN entry
9D5A	Error handler
9D5C	BASIC coldstart entry
9D5E	BASIC warmstart entry
9D60	BASIC relocate

---

LOCATION	IMAGE CONTAINED
9D62-9D6B	INTEGER BASIC VECTOR IMAGE
9D6C-9D77	ROM (and Language card) APPLESOFT IMAGE
9D78-9D83	RAM APPLESOFT IMAGE
*** 9D84-9DBE	DOS coldstart entry routine
*** 9DBF-9DE9	DOS warmstart entry routine
*** 9DEA-9E50	First entry point after boot. Does a number of chores including set MAXFILES, Set up DOS vectors in page (\$3D0-\$3FF) and run the HELLO program
9E42	Type of HELLO file- change to 34 to BRUN or 14 to EXEC if your HELLO file is not Applesoft or Integer.
9DE51-9E7F	Page 3 vector image that above routine copies from. Do permanent patches here and then INIT new disk.
9FCD-A179	DOS command parse routines. This a large collection of small routines to break down a command line, check its validity and CALL to A180 to process it. It's too big to go into and tricky to POKE around in. You're on your own with this one.
A6C4-A6D4	Error message text. You can change them if you wish.
A884-A908	DOS command table. Contains ASCII name for look-up of commands. These can be customized by just changing. Notice the last character of each command is marked by offsetting it by \$80.
****	This is done by turning the MSB on. Adding 128 (decimal) is the same thing

A909-A940

Command keywords table. Holds a two byte ENTRY for each of the valid commands in the same order as command table. Change these around and you'll confuse everybody. This ENTRY indicates which of the keywords are legal with each command and if any thing else such as file names are expected. Each bit is a mask and if true means the following:

Bit	Meaning	Bit	Meaning
0	File name optional	8	C,I, & O legal
1	No operand required	9	V for Volume is legal
2	File name required	10	D for Drive is legal
3	File name #2 required	11	S for Slot is legal
4	S for Slot is required	12	L for length is legal
5	MAXFILES extender value reqd.	13	R for Record is legal
6	Non-Direct Command	14	B for Byte # legal
7	If file not found-create new	15	A for Address legal

A941-A94A

Keywords name table. List of keywords V,D,S,L,R,B,A,C,I,O

A94B-A954

Keyword flag bit position table for keywords above.

A955-A970

Keyword value range table. Valid range in four bytes, 2 for minimum, 2 for maximum. In same order as table. C,I, and O have no range so aren't listed. Change A964 from 7F to FF (increase from 32767 to 65535) to get rid of the RANGE ERROR when trying to BSAVE long files.

\*\*\*\*

A971-AA3E

Error message text table for all 15 DOS error codes. You can change them to your hearts content but if you make any one longer then see offset table below. Don't over run the end of the original table in any case.

\*\*\*\*

AA3F-AA4F

Error message offset table. Each message, listed in order, has a one byte offset from start of table to beginning of its text. If you change overall location in table above by making a command longer then realign offset index of all subsequent messages.

AA4F-AA65

First DOS main variables table

AA4F	Current file buffer addr.	AA63	Scratch pad variable
AA51	Status Flags	AA64	Index of current Keyword
AA52	CSWL state number	AA65	Keywords on command line
AA53	Addr. of BASIC CSWL	AA66	Volume number
AA55	Addr. of Monitor KSWL	AA68	Drive number
AA57	MAXFILES value	AA6A	Slot number
AA59	Register save area	AA6C	Length of File
AA5D	Command offset index	AA6E	Record
AA5E	MON Flags	AA70	Byte
AA5F	Index of last command	AA72	Address of File
AA60	Range length for LOAD/BLOAD	AA74	MON value
AA62	Pending command index		

\*\*\*\*

AA75-AA92

Primary file name buffer

AA93-AA80

Secondary file name buffer(used for rename)

AAB1-AAC0

Second DOS Constants/Variable Table

AAB1	MAXFILES default value (3)	AAB6	Active BASIC Flag
AAB2	CONTROL-D (\$84)		\$00= Integer \$40=ROM APSFT
AAB3	EXEC Active flag (00=no)		\$80= RAM APSFT
	(FLAG#0 EXEC in progress)	AAB7	RUN intercepted flag
AAB4	EXEC file buffer addr.	AAB8	"APPLESOFT" ASCII

AAC1-AAC8 File Manager Constants table  
 AAC1 RWTS parameter list addr.(B7E8)  
 AAC3 VTOC sector buffer address  
 AAC5 Catalog sector buffer address  
 AAC7 DOS last byte(+1) address  
 AAC9-AAE4 File Manager function entry point table. There are 14 entry point addresses in OPCODE order. There are actually only 12 functions and each end of the table is marked with an exit point (B37F). (-1 offset)

OPCODE	FUNC.	ADDRESS	OPCODE	FUNC.	ADDRESS
0	EXIT	BE7F	7	LOCK	ACEF
1	OPEN	AB22	8	UNLOCK	ACF6
2	CLOSE	ACD6	9	RENAME	AC40
3	READ	AC58	A	POSITION	AD12
4	WRITE	AC70	B	INIT	AE8E
5	DELETE	AD2B	C	VERIFY	AD18
6	CATALOG	AD98	D	EXIT	BE7F

AAFD File Manager entry from page 3 (\$3D6)  
 AB06 File Manager main entry point  
 \*\*\*\* AD98 Start of catalog functions. You can alter several places here. Some approximate location and purposes:  
 ADA4 Number of lines per catalog page, then pause. Normally 22 (\$16)  
 AE17 Number of characters in catalog entry. Normally 30 (\$1D)  
 AE22 Jmp to carriage return subroutine. Jump to external counter subroutine and get more than one column of catalog entries. Two columns look nice on an 80 column screen or printer. When doing this consider that the other places you see JSR \$2E2F are generally a skip a line (print C/R). You may wish to NOP some of them.  
 AE34 Patch by changing to \$60. This removes the pause between pages of a long catalog.  
 B3EF Number of tracks on a disk.  
 \*\*\*\*\*  
 B600-BFFF TRACK 0 SECTOR 0 IMAGE FOR WRITE DURING INIT  
 B8A2-B8B7 WRITE PRIMARY AND SECONDARY BUFFERS TO DISK  
 B8DC-B99F READ A SECTOR ROUTINE  
 B944-B99F READ ADDRESS FIELD  
 Look for opening and closing address marks and change to access some non-standard DOS disks.  
 BC56-BCC3 WRITE ADDRESS FIELD DURING INIT. Roll you own custom DOS.  
 BEAF-BFOC INIT ROUTINE-Close to end is a check on how many tracks to init.  
 BFD3 ZERO LANGUAGE CARD DURING BOOT. Patch by entering from monitor  
 BFD3:EA EA then INIT new disk. Now warm boots won't reload language card.

This is a limited list. If you desire a more detailed DOS map, send me a dollar for reproduction costs and an SASE. In researching and writing this article it was hard to reduce it to even this size. I still have a copy of the larger one with less often used (but important routines) for the daring Peekers and Pokers.

Dave Burroughs, PSC2 Box 15361, APO San Francisco, 96367



The 16 bit 6502 is FINALLY here !!!

submitted by George Wilkin

The Western Design Center Inc of Mesa, Arizona has introduced a 16 bit 6502 compatiabile microprocessor.

There are two versions of this microprocessor.

The W65SC816 is the full version of the chip which can address 16Meg. The W65SC802 is pin-for-pin compatible with the old 6502 and can only access 64K but is FULLY software compatible with the bigger version.

The following information is directly out of the WDC W65SC816 data sheet.

#### FEATURS:

Advanced CMOS design for low power consumption and increased noise immunity.

Single +5 volt supply

Emulation mode allows complete hardware and software compatibility with NMOS 6502

24-bit address bus allows access to 16Mbytes of memory space

Full 16-bit ALU, Accumulator, Stacp Pointer and Index Registers.

Valid Data Address (VDA) and Valid Program Address (VPA) output allows dual cache and cycle steal DMA implementaion

Vector Pull (VP\)) output indicates when interrupt vectors are being addressed. May be used to implement vectored interrupt design.

Separate program and data bank registers allow program segmentaion.

New Direct Register allows "zero page" addressing anywhere in the first 64K.

24 addressing modes - 13 original 6502 modes, plus 11 new addressing modes

New Wait for Interrupt (WAI) and Stop the Clock (STP) insturcions further reduce power consumption, decrease interrupt latency and allows synchronizaiton with external events.

New Co-Processor instrucion (COP) with associated vector supports co-processor configurations, i.e., floating point processors.

New block move ability.

## W65SC816 Processor Programming Model

+ - - - - - +	+ - - - - - +	+ - - - - - +
8 bits	8 bits	8 bits
+ - - - - - +	+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +	+ - - - - - +
Data Bank Reg	X Register hi	X Register lo
+ - - - - - +	+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +	+ - - - - - +
Data Bank Reg	Y Register hi	Y Register lo
+ - - - - - +	+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +	+ - - - - - +
00	Stack Ptr hi	Stack Ptr lo
+ - - - - - +	+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +
Accumulator A	Accumulator B
+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +	+ - - - - - +
Pgm Bank Reg	Program Ctr Hi	Program Ctr Lo
+ - - - - - +	+ - - - - - +	+ - - - - - +

+ - - - - - +	+ - - - - - +	+ - - - - - +
00	Direct Reg Hi	Direct Reg Lo
+ - - - - - +	+ - - - - - +	+ - - - - - +

## Status Register (P)

- - - - -	E = Emulation	1 = 6502
N V M X D I Z C		
	+-- Carry	1 = true
	+--- Zero	1 = result zero
	+----- IRQ Disable	1 = disable
	+----- Decimal Mode	1 = true
	+----- Index reg sel	1 = 8 bit, 0 = 16 bit
	+----- Memory Select	1 = 8 bit, 0 = 16 bit
	+----- Overflow	1 = true
+ - - - - -	Negative	1 = negative

The new instructions are:

(These were also on the CMOS version of the 6502)

BRA	Branch always
PLX	Pull X
PLY	Pull Y
PHX	Push X
PHY	Push Y
STZ	Store Zero
TRB	Test and reset bit
TSB	Test and set bit

## New Addressing modes:

BIT	immediate	
DEC	accumulator	
	direct indirect (No indexing) i.e. LDA (label)	
	all 8 Group I instructions,	
	LDA STA ADC SBC AND ORA EOR CMP	
INC	accumulator	
JMP	Absolute Indexed Indirect	JMP (label,X)

New to the W65SC816/W65SC802

Group I instructions with new addressin modes.

Direct indirect long indext with y (all 8 instuctions)

Direct Indirect Long (all 8 insturctions)

Absoulute Long and Absolute long indexed with X (all 8 instructions)

Stack relative (all 8 instructions)

Stack relative Indirect indexed Y (all 8 instructions)

## New push/pull instructions

PEA	Push effective absoulute address or immediate data word on stack
PEI	Push effective indirect address or direct daa word on stack
PER	Push effective Pgm Counter Relative Indirect address or pgm counter relative data word on stack
PLB	Pull data bank register from stack
PLD	Pull direct register from stack
PHB	Push data bank register on stack
PHD	Push direct register on stack
PHK	Push program bank register on stack

## Status register instructions

REP	Reset status bits defined by immediate byte 1= reset bit      0= do not change
SEP	Set status bits defined byt immediate byte 1= set bit      0= do not change

## New register transger instructions

TCD	Transfer C accumultor to direct register D
TDC	Transfer Direct Register D to C Accumulator
TCS	Transfer C accumulator to stack register
TSC	Transfer Stack register to Accumulator C
TXY	Transfer X to Y
TYX	Transfer Y to X
XBA	exchange B and A
SCE	Exchange carry bit with emulation bit E

## New branch jump and return instructions

BRL	Branch Relative Long Always (-32768 -> +32767)
JML	Jump indirect Long
JMP	Jump Absolute Long
JSL	Jump to subroutine Long (Requires RTL for return)
RTL	Return from subroutine Long

## New block move instructions

MVN     Move block from source (X reg) to destination (y reg)  
         block length of C  
         X & Y are incremented

MVP     Move block from source (X reg) to destination (y reg)  
         block length of C  
         X & Y are decremented

## New Co-Processor instuction

COP     Co-Processor instruction with associated COP vector and  
         Abort Input.

## New System Control Instructions

STP     Stop the clock instruction

WAI     Wait for Interrupt

WDM     reserved for future systems    A   NOP at present.

You can get samples of this chip from WDC for \$95.00 for a 1mhz version

They expect to have 4mhz very soon and will eventually go up to 8mhz.

The 8mhz version is benchmarked against most of the other popular 16-bit  
micros, and does very farvorably in a lot of the things they compared.

But I thing these comparisons were 'picked'. They included Reg => mem  
moves, both 8/16 bits and 32 bits.

I have one of these beauties orderd and will give more details after I  
have used it.

If anyone has any specfic questions, feel free to ask, but I dont gurantee  
I know the answers since I dont have a chip yet...

Keith Sproul  
Ksproul@Rutgers.Arpa

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## Interesting Bits

by Chris Tufts

Bantam Books will publish THE APPLE IIc BOOK, a paperback by Bill O'Brien, in conjunction with Apple Computer's recent unveiling of the Apple IIc portable personal computer. Bantam will publish the book the week of June 18. THE APPLE IIc BOOK is written for new Apple IIc computer buyers and experienced apple users. The book will provide inside tips and information unavailable from any source, including the owner's manual. It will answer users' questions about compatibility, will help them configure their new system, and will include information on DOS 3.3 and the newly-developed ProDOS. Special features of the book will include information on adding peripherals such as mice, touchpads, graphic tablets and the new "flat screen," appraisals of leading and lesser-known recreational, business, educational and utility software packages, accessing bulletin boards and locating user support groups. The cost of the book is \$12.95.

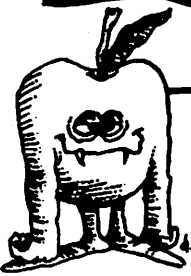
Peripheral Visions Inc. has introduced Drum-Key, an electronic music interface board and software package for use with stereos, electric instrument amplifiers, and the user's Apple II series computers, that creates 28 real percussion sounds. Drum-Key uses digital recordings of 28 actual drum and percussion instruments including kick bass, snare, four different tom-toms, a variety of cymbals, cowbell, tambourine and six sounds made by conventional drum synthesizers. With Drum-Key, the user can compose, play, and record on disk all the percussions and riffs he or she can think of, plus play along with the 100 rhythm patterns and 26 songs built into Drum-Key. Some of the features of the program include multi-track recording, programmable audio and video metronome and real-time recording. Drum-Key has a suggested list price of \$139, including postage and handling. To order directly by mail from PVI call toll free 1-800-441-1003 or write Peripherals Visions Inc., Great Valley Parkway, Malvern, PA 19355.

Addison-Wesley Publishing Company has published an updated version of its software reference book, THE ADDISON-WESLEY BOOK OF APPLE SOFTWARE 1984 by Jeffrey Stanton, Robert Wells, Ph.D., Sandra Rochowansky and Michael Mellin, Ph.D. The book both lists and evaluates more than 600 of the most popular

software packages designed for the Apple Computers. A panel of experts assembled by the book's editors has divided software into categories for business, education, entertainment, and utilities. The book also reviews hardware peripherals for Apple computers. Latest prices and performance features are given. Reviews of each software package include a description and letter grade (A-F) of the package's features. The paperback book costs \$19.95.

Davka Corporation has released a computer cookbook: JEWISH COMPU-CHEF. The program features over 150 kosher recipes. Supplementary recipe disks give hundreds more recipes, covering specialties like Passover fare, international recipes (all kosher), traditional Sabbath and holiday cooking, and party food. COMPU-CHEF will search for recipes by ingredients, will print off recipes and will store recipes on disk. The user can add, change, or delete any recipe. Besides recipes, JEWISH COMPU-CHEF features a glossary, calorie and nutrition guide, table of measurements, and suggestions for ingredient substitutions, and automatically calculates ingredient amounts for different serving sizes. It requires no programming knowledge to operate and is available for Apple II+/IIe/IIc computers (\$39.95 for the two-sided master diskette of recipes; \$12.00 each for supplements). Available from directly from DAVKA, 845 N. Michigan Ave., Suite 843, Chicago IL 60611, (1-800-621-8227; In Illinois, 312-944-4070), or directly from Jewish bookstores, synagouge giftshops, and computer stores.

Strategic Software Systems, Inc. has introduced Bottomline-V, a corporate financial system for business planning, raising venture capital, increasing lines of credit, or obtaining an SBA loan. The system begins with a 12-month detailed budget and cash flow analysis. The user then inputs basic data variables, and Bottomline-V performs over 9,000 calculations to produce five-year pro formas of P&L, Balance Sheet, Changes in Financial Position, and Financial Ratio Analysis. The documentation is easy to follow with examples and step-by-step prodecures. Bottomline-V runs on Apple Computers with compatible spreadsheet programs such as Lotus 1-2-3, Multiplan, SuperCalc, and VisiCalc. It is an "off-the-shelf" package with a suggested retail price of \$295. For information contact: Product Information Dept., Strategic Software Systems, Inc., 1300 Dove St., Suite 200, Newport Beach, CA 92660 or call (714) 476-2842.



# northern illinois apple users group

1271 West Dundee Road, Buffalo Grove, IL. 60090

## MEMBERSHIP APPLICATION

**NOTE:** Information obtained from this application is solely for the use of the NORTHERN ILLINOIS APPLE USERS GROUP (NIAUG). Membership lists will not be distributed to members or non-members.

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CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_-

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Would you please take a few moments of your time to fill out the following information. This information will help us to get a better picture of what the needs of our Users really are.  
Please check the type of computer(s) you have or are using.

☐ APPLE II ☐ APPLE II+ ☐ APPLE IIe ☐ APPLE /// ☐ LISA

☐ MACINTOSH ☐ APPLE COMPATIBLE ☐ OTHER \_\_\_\_\_

Benefits the group can provide for you \_\_\_\_\_

Benefits you would like to provide to the group \_\_\_\_\_

Comments \_\_\_\_\_

#####  
TREASURER'S USE ONLY Do not write below this line!

Cash ☐ Amount \$ \_\_\_\_\_ Check ☐ # \_\_\_\_\_ Date \_\_\_\_\_-

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## EDITING COMMANDS (2)

&lt;---- KEY

Backspaces the cursor. Deletes each character it passes over. IMPORTANT, the erased character is still visible on the screen; however, it has been erased from memory.

----&gt; KEY

CURSOR MOVES FORWARD. EACH CHARACTER IT PASSES OVER IS RETYPED IN MEMORY.

CONTROL "C"

Press CONTROL KEY and type the letter "C" at the same time. This will stop the running of your program. If you wish to continue the "run", type CONT.

CONTROL "S"

Press CONTROL KEY and type the letter "S" at the same time. This will stop the running of your listing. If you wish to resume the listing, press SPACE BAR. You may continue to alternate this sequence.

CONTROL "X"

Press CONTROL KEY and type the letter "X". This will delete the line you are currently typing. (Provided you have not pressed the RETURN KEY.)

ESC KEY SEQUENCES. PRESS ESC KEY, RELEASE IT. PRESS SECOND KEY.

ESC-A: Moves the cursor one position to the right.

ESC-B: Moves the cursor one position to the left.

ESC-C: Moves the cursor down one space.

ESC-D: Moves the cursor up one space.

## EDITING COMMANDS (3)

CLEAR:

Resets all variables in memory to zero and all string variables to null.

EXAMPLE:       10 Let A = 5  
                  20 Let A\$ = "Mother"  
                  30 PRINT A, A\$  
                  40 CLEAR  
                  50 PRINT A, A\$  
                  RUN  
                  5       Mother  
                  0

EDIT MODE

Press ESC KEY, release key. Press second key. You are now in edit mode until you press any key except I, J, K and M. Notice their position on the keyboard and their relative cursor movements. IMPORTANT When editing a line you must retype "number line". Press RIGHT ARROW KEY until cursor is in the desired position for editing.

```

      I
      ↑
J ← 1 → K
      ↓
      M
  
```

EXAMPLE: 10 PRINT "Fatherr"  
 Press ESC (release) (you are in edit mode)  
 Press "I" (continue pressing until your cursor is at beginning of line 10)

Type "10"

Press → (move cursor to edit position, edit)

Press → (retype remainder of line)

Press RETURN KEY

submitted by george Wilkin

```
1000 REM   MacTEP - Macintosh Terminal Emulator Program
1010 REM
1020 REM   Version 1.81 - 6-Apr-84
1030 REM   Dennis F. Brothers - Compuserve 70065,172 - MCI Mail DBROTHERS
1040 REM
1050 REM   Copyright (c) 1984 - Brothers Associates, Wayland MA
1060 REM   Permission is hereby granted for personal, non-commercial
1070 REM   reproduction and use of this program, provided that this
1080 REM   notice is included in any copy.
1090 REM
1100 REM   Modem connections:
1110 REM           Mac   Modem
1120 REM           1     1     (Frame Ground)
1130 REM           3,8   7     (Signal Ground)
1140 REM           5     2     (Transmit Data)
1150 REM           6     20    (+12V -> DTR)
1160 REM           7     8     (CTS <- DCD)
1170 REM           9     3     (Receive Data)
1180 REM
1190 REM
1200 CLEAR ,25000: REM   Allocate extra memory
1210 REM
1220 DEFINT A-Z: REM   Default to integers for speed
1230 REM
1240 REM
2000 REM   Define constants
2010 REM
2020 BUFFERSIZE=2048
2030 BUFLIM=BUFFERSIZE\4
2040 REM
2050 FALSE=0: TRUE=-1
2060 REM
2070 LF=10: LF$=CHR$(LF)
2080 CR=13: CR$=CHR$(CR)
2090 XON=17: XON$=CHR$(XON)
2100 XOFF=19: XOFF$=CHR$(XOFF)
2110 REM
2120 CMDB=2: CMDB$=CHR$(CMDB)
2130 CMDE=5: CMDE$=CHR$(CMDE)
2140 CMDR=18: CMDR$=CHR$(CMDR)
2150 CMTD=20: CMTD$=CHR$(CMTD)
2160 REM
2170 AIN=-6: AOUT=-7
2180 SB1=&H4000: SB15=&H8000: SB2=&HC000
2190 PARNONE=&H0: PARODD=&H1000: PAREVEN=&H3000
2200 DB5=&H0: DB6=&H800: DB7=&H400: DB8=&HC00
2210 REM
2220 REM
3000 REM   Pre-allocate all variables so arrays don't move
3010 REM
3020 GOSUB 20000
3030 DIM XTABLEARRAY(127)
3040 DIM BUFFERARRAY(BUFFERSIZE/2)
3050 DIM PARAMLIST(39)
3060 I=0: A=0
3070 TL=0
3080 BR=0: TC=0
3090 L$="": LP!=0: C$="": XL$=""
3100 F$="": FL=0: FP!=0
3110 TYPEAPPL$=""
3120 XFLAG=FALSE
3130 CRFLAG=FALSE: FLUSH=FALSE
3140 C=0
```



```
3150 QUIT=0
3160 REM
3170 CONTROL!=0
3180 TRANSLATE!=0
3190 BPROC!=0
3200 GETFILEINFO!=0
3210 SETFILEINFO!=0
3220 XTABLE!=0
3230 BUFFER!=0: BUFFERT!=0: BUFFERH=0: BUFFERL=0
3240 PARAM!=0
3250 LP!=VARPTR(L$): FP!=VARPTR(F$)
3260 TLP!=0
3270 CRFLAGP!=0: FLUSHP!=0
3280 REM
3290 CONTROL!=VARPTR(CONTROLCODE(0))
3300 TRANSLATE!=VARPTR(TRANSLATECODE(0))
3310 BPROC!=VARPTR(BPROCCODE(0))
3320 GETFILEINFO!=VARPTR(GETFILEINFOCODE(0))
3330 SETFILEINFO!=VARPTR(SETFILEINFOCODE(0))
3340 XTABLE!=VARPTR(XTABLEARRAY(0))
3350 BUFFER!=VARPTR(BUFFERARRAY(0))
3360 BUFFERH=INT(BUFFER!/65536!): BUFFERT!=BUFFER!-(BUFFERH*65536!)
3370 IF BUFFERT!<32768! THEN BUFFERL=BUFFERT! ELSE BUFFERL=BUFFERT!-65536!
3380 PARAM!=VARPTR(PARAMLIST(0))
3390 LP!=VARPTR(L$): FP!=VARPTR(F$)
3400 TLP!=VARPTR(TL)
3410 CRFLAGP!=VARPTR(CRFLAG)
3420 FLUSHP!=VARPTR(FLUSH)
3430 REM
3440 REM Initialize the character translation table
3450 REM
3460 FOR I=0 TO 255:POKE XTABLE!+I,0:NEXT I
3470 FOR I=8 TO 13
3480 POKE XTABLE!+I,I: POKE XTABLE!+128+I,I
3490 NEXT I
3500 POKE XTABLE!+10,0: POKE XTABLE!+128+10,0
3510 FOR I=32 TO 126
3520 POKE XTABLE!+I,I: POKE XTABLE!+128+I,I
3530 NEXT I
3540 REM
3550 REM
4000 REM Initialize and display startup information
4010 REM
4020 CALL TEXTSIZE(9): CALL TEXTFONT(4):WIDTH 255
4030 CALL PENNORMAL: CALL SHOWPEN: CALL PENMODE(10)
4040 CLS: PRINT: PRINT: PRINT
4050 PRINT "MacTEP - V1.81 - Copyright (c) 1984, Brothers Associates"
4060 PRINT: PRINT: PRINT
4070 PRINT " CMD-E exits to the Macintosh desktop."
4080 PRINT " CMD-T starts and stops ASCII transmit (upload).\"
4090 PRINT " CMD-R starts and stops ASCII receive (download).\"
4100 PRINT " CMD-B starts and stops ASCII Basic receive\"
4110 PRINT " (lines not beginning with a digit are ignored).\"
4120 PRINT: PRINT
4130 REM
4140 REM
5000 REM Set up and OPEN the COM1 port
5010 REM
5020 OPEN "COM1:" AS #1 LEN=BUFFERSIZE
5030 WIDTH #1,255
5040 REM
5050 INPUT "Baud rate: ", BR
5060 TC=(115200!/BR)-2
5070 REM
5080 FOR I=0 TO 49\2: PARAMLIST(I)=0: NEXT I
5090 PARAMLIST(24\2)=AIN
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5100 PARAMLIST(26\2)=8
5110 PARAMLIST(28\2)=SB1+PARNONE+DB8+TC
5120 CALL CONTROL!(PARAM!)
5130 REM
5140 FOR I=0 TO 49\2: PARAMLIST(I)=0: NEXT I
5150 PARAMLIST(24\2)=AOUT
5160 PARAMLIST(26\2)=8
5170 PARAMLIST(28\2)=SB1+PARNONE+DB8+TC
5180 CALL CONTROL!(PARAM!)
5190 REM
5200 FOR I=0 TO 49\2: PARAMLIST(I)=0: NEXT I
5210 PARAMLIST(24\2)=AIN
5220 PARAMLIST(26\2)=9
5230 PARAMLIST(28\2)=BUFFERH
5240 PARAMLIST(30\2)=BUFFERL
5250 PARAMLIST(32\2)=BUFFERSIZE
5260 CALL CONTROL!(PARAM!)
5270 REM
5280 FOR I=0 TO 49\2: PARAMLIST(I)=0: NEXT I
5290 PARAMLIST(24\2)=AIN
5300 PARAMLIST(26\2)=10
5310 POKE PARAM!+28,1: REM enable XON/XOFF output handshake
5320 POKE PARAM!+29,0: REM disable CTS output handshake
5330 POKE PARAM!+30,XON: REM X-ON handshake character
5340 POKE PARAM!+31,XOFF: REM X-OFF handshake character
5350 POKE PARAM!+32,0: REM no aborts
5360 POKE PARAM!+33,0: REM no events
5370 POKE PARAM!+34,0: REM disable XON/XOFF input flow control
5380 CALL CONTROL!(PARAM!)
5390 REM
5400 PRINT: PRINT: PRINT
5410 REM
5420 REM
6000 REM    Terminal Mode
6010 REM
6020 CALL PENSIZ(4,1)
6030 XFLAG=FALSE
6040 CALL LINE(0,-4)
6050 IF LOC(1)=0 THEN GOTO 6110
6060     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
6070     LS=INPUT$(LOC(1),#1)
6080     CALL TRANSLATE!(XTABLE!,LP!,TLP!)
6090     IF TL<>C THEN CALL LINE(C,4): PRINT LEFT$(LS,TL);: CALL LINE(0,-4)
6100     IF XFLAG THEN XFLAG=FALSE: PRINT #1,XON$;
6110 C$=INKEY$
6120 IF C$="" THEN GOTO 6050
6130 IF C$=CMDE$ THEN PRINT: PRINT "Exiting...": SYSTEM
6140 IF C$=CMDB$ THEN CALL LINE(C,4): GOTO 7000
6150 IF C$=CMDB$ THEN CALL LINE(C,4): GOTO 8000
6160 IF C$=CMDB$ THEN CALL LINE(C,4): GOTO 9000
6170 PRINT #1,C$;
6180 GOTO 6050
6190 REM
6200 REM
7000 REM Receive (download) BASIC program
7010 REM
7020 CALL PENSIZ(6,1)
7030 XFLAG=FALSE: CRFLAG=TRUE: FLUSH=FALSE
7040 PRINT: LINE INPUT "BASIC File Name: ",F$
7050 IF F$="" THEN GOTO 6000
7060 OPEN F$ FOR OUTPUT AS #2
7070 CALL LINE(0,-2)
7080 QUIT=FALSE
7090 WHILE NOT QUIT
7100     IF LOC(1)=0 THEN GOTO 7210
7110     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
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```
7120     L$=INPUT$(LOC(1),#1)
7130     CALL TRANSLATE!(XTABLE!,LP!,TLP!)
7140     IF TL=0 THEN GOTO 7200
7150     CALL LINE(0,2): PRINT LEFT$(L$,TL);: CALL LINE(0,-2)
7160     CALL BPROC!(LP!,TLP!,CRFLAGP!,FLUSHP!)
7170     IF TL=0 THEN GOTO 7200
7180     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
7190     PRINT #2,LEFT$(L$,TL);
7200     IF XFLAG THEN XFLAG=FALSE: PRINT #1,XON$;
7210     C$=INKEY$
7220     IF C$="" THEN GOTO 7250
7230     IF (C$=CMDB$) OR (C$=CMDR$) THEN QUIT=TRUE: GOTO 7250
7240     PRINT #1,C$;
7250     WEND
7260 CALL LINE(0,2)
7270 CLOSE #2
7280 IF RIGHT$(F$,1)<>":" THEN TYPEAPPL$="MSBAMSBA": GOSUB 10000
7290 PRINT: PRINT "BASIC Receive Ended": PRINT
7300 GOTO 6000
7310 REM
7320 REM
8000 REM Receive (download) ASCII file
8010 REM
8020 CALL PENSIZE(6,1)
8030 XFLAG=FALSE
8040 PRINT: LINE INPUT "Receive File Name: ",F$
8050 IF F$="" THEN GOTO 6000
8060 OPEN F$ FOR OUTPUT AS #2
8070 CALL LINE(0,-2)
8080 QUIT=FALSE
8090 WHILE NOT QUIT
8100     IF LOC(1)=0 THEN GOTO 8190
8110     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
8120     L$=INPUT$(LOC(1),#1)
8130     CALL TRANSLATE!(XTABLE!,LP!,TLP!)
8140     IF TL=0 THEN GOTO 8180
8150     CALL LINE(0,2): PRINT LEFT$(L$,TL);: CALL LINE(0,-2)
8160     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
8170     PRINT #2,LEFT$(L$,TL);
8180     IF XFLAG THEN XFLAG=FALSE: PRINT #1,XON$;
8190     C$=INKEY$
8200     IF C$="" THEN GOTO 8230
8210     IF (C$=CMDB$) OR (C$=CMDR$) THEN QUIT=TRUE: GOTO 8230
8220     PRINT #1,C$;
8230     WEND
8240 CALL LINE(0,2)
8250 CLOSE #2
8260 IF RIGHT$(F$,1)<>":" THEN TYPEAPPL$="TEXTMACA": GOSUB 10000
8270 PRINT: PRINT "Receive Ended": PRINT
8280 GOTO 6000
8290 REM
8300 REM
9000 REM Transmit (upload) ASCII file
9010 REM
9020 CALL PENSIZE(2,1)
9030 XFLAG=FALSE
9040 PRINT: LINE INPUT "Transmit File Name: ",F$
9050 IF F$="" THEN GOTO 6000
9060 OPEN F$ FOR INPUT AS #2
9070 CALL LINE(0,-6)
9080 QUIT=FALSE
9090 WHILE NOT (EOF(2) OR QUIT)
9100     IF LOC(1)<>0 THEN GOTO 9150
9110     LINE INPUT #2,XL$
9120     IF XL$<>"" THEN FOR I=1 TO LEN(XL$): PRINT #1,MID$(XL$,I,1);: NEXT I
9130     PRINT #1,CR$;
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9140     IF LOC(1)=0 THEN GOTO 9200
9150     IF LOC(1)>BUFLIM AND NOT XFLAG THEN PRINT #1,XOFF$;: XFLAG=TRUE
9160     L$=INPUT$(LOC(1),#1)
9170     CALL TRANSLATE!(XTABLE!,LP!,TLP!)
9180     IF TL<>0 THEN CALL LINE(0,6): PRINT LEFT$(L$,TL);: CALL LINE(0,-6)
9190     IF XFLAG THEN XFLAG=FALSE: PRINT #1,XON$;
9200     C$=INKEY$
9210     IF C$="" THEN GOTO 9240
9220     IF C$=CMDT$ THEN QUIT=TRUE: GOTO 9250
9230     PRINT #1,C$;
9240     IF LOC(1)<>0 THEN GOTO 9150
9250     WEND
9260 CALL LINE(0,6)
9270 CLOSE #2
9280 PRINT: PRINT "Transmit Ended": PRINT
9290 GOTO 6000
9300 REM
9310 REM
10000 REM Subroutine to set type and application of a file
10010 REM
10020 FL=LEN(F$)
10030 F$=CHR$(FL)+F$
10040 FOR I=0 TO 79: POKE PARAM!-I,0: NEXT I
10050 POKE PARAM!+19,PEEK(FP!+2)
10060 POKE PARAM!+20,PEEK(FP!+3)
10070 POKE PARAM!+21,PEEK(FP!+4)
10080 CALL GETFILEINFO!(PARAM!)
10090 FOR I=1 TO 8
10100 POKE PARAM!+31+I,ASC(MID$(TYPEAPPL$,I,1))
10110 NEXT I
10120 CALL SETFILEINFO!(PARAM!)
10130 RETURN
10140 REM
10150 REM
20000 REM Set up Control ROM call
20010 REM
20020 DIM CONTROLCODE(25)
20030 RESTORE 20100
20040 I=0
20050 READ A:CONTROLCODE(I)=A
20060 I=I+1
20070 IF A<>-1 THEN GOTO 20050
20080 REM
20090 REM
20100 REM Machine language code to invoke Control ROM function
20110 REM
20120 DATA &H4E56, &HFFF8, &H48EE, &H0101, &HFFF8, &H206E, &H0008, &HA004
20130 DATA &H4CEE, &H0101, &HFFF8, &H4E5E, &H4E75
20140 DATA -1
20150 REM
20160 REM
21000 REM Set up Translate ML routine
21010 REM
21020 DIM TRANSLATECODE(50)
21030 RESTORE 21100
21040 I=0
21050 READ A:TRANSLATECODE(I)=A
21060 I=I+1
21070 IF A<>-1 THEN GOTO 21050
21080 REM
21090 REM
21100 REM Machine language code to translate strings
21110 REM
21120 DATA &H4E56, &HFFE8, &H48EE, &H0707, &HFFE8, &H226E, &H000C, &H4281
21130 DATA &H1219, &HE181, &H1219, &H4282, &H1419, &HE182, &H1419, &HE182
21140 DATA &H1419, &H2042, &H2248, &H246E, &H0010, &H4282, &H4A41, &H6712
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```
21150 DATA &H4280, &H1018, &H1252, &H0000, &H6704, &H5289, &H5242, &H5341
21160 DATA &H66F0, &H205E, &H0008, &H3062, &H4CEE, &H07C7, &HFFE8, &H4E5E
21170 DATA &H4E75
21180 DATA -1
21190 REM
21200 REM
22000 REM Set up Process BASIC ML routine
22010 REM
22020 DIM BPROCEDURE(100)
22030 RESTORE 22100
22040 I=0
22050 READ A:BPROCEDURE(I)=A
22060 I=I+1
22070 IF A<>-1 THEN GOTO 22050
22080 REM
22090 REM
22100 REM Machine language code to process BASIC program
22110 REM
22120 DATA &H4E56, &HFFEC, &H48EE, &H1F07, &HFFEC, &H206E, &H0014, &H548E
22130 DATA &H4280, &H1018, &H180, &H1018, &H180, &H1018, &H2040, &H2246
22140 DATA &H246E, &H0010, &H266E, &H0000, &H286E, &H0008, &H3212, &H4282
22150 DATA &H4A41, &H6746, &H1018, &H0000, &H000D, &H661A, &H4A54, &H6708
22160 DATA &H4254, &H36BC, &H0001, &H602E, &H4A53, &H662A, &H36BC, &H0001
22170 DATA &H12C0, &H5242, &H6020, &H4A54, &H661C, &H4A53, &H6712, &H0000
22180 DATA &H0030, &H6D06, &H0000, &H0039, &H6F06, &H38BC, &H0001, &H6C06
22190 DATA &H4253, &H12C0, &H5242, &H5341, &H66BA, &H3462, &H4CEE, &H1F07
22200 DATA &HFFEC, &H4E5E, &H4E75
22210 DATA -1
22220 REM
22230 REM
23000 REM Set up GetFileInfo ROM call
23010 REM
23020 DIM GETFILEINFOCODE(25)
23030 RESTORE 23100
23040 I=0
23050 READ A: GETFILEINFOCODE(I)=A
23060 I=I+1
23070 IF A<>-1 THEN GOTO 23050
23080 REM
23090 REM
23100 REM Machine language code to invoke GetFileInfo ROM function
23110 REM
23120 DATA &H4E56, &HFFF8, &H48EE, &H0101, &HFFF8, &H206E, &H0008, &HAC0C
23130 DATA &H4CEE, &H0101, &HFFF8, &H4E5E, &H4E75
23140 DATA -1
23150 REM
23160 REM
24000 REM Set up SetFileInfo ROM call
24010 REM
24020 DIM SETFILEINFOCODE(25)
24030 RESTORE 24100
24040 I=0
24050 READ A: SETFILEINFOCODE(I)=A
24060 I=I+1
24070 IF A<>-1 THEN GOTO 24050
24080 REM
24090 REM
24100 REM Machine language code to invoke SetFileInfo ROM function
24110 REM
24120 DATA &H4E56, &HFFF8, &H48EE, &H0101, &HFFF8, &H206E, &H0008, &HAC0D
24130 DATA &H4CEE, &H0101, &HFFF8, &H4E5E, &H4E75
24140 DATA -1
24150 REM
24160 REM
25000 RETURN
25010 REM
```

25020 REM  
25030 END

```
#####
7bit changes for mactep
#####
2205 PARDE = PARNONE + DB6
5061 PRINT "Hit <space bar> for 7E, <return> for 8K."
5062 C$ = INKEY$: IF C$ = "" THEN GOTO 5062
5063 IF (C$ <> " ") AND (C$ <> CHR$(13)) THEN GOTO 5062
5064 IF C$ = " " THEN PARDE = PAREVEN - DB7
5110 PARAMLIST(28\2)=SB1-PARDE-TC
5170 PARAMLIST(28\2)=SB1-PARDE-TC
=====
```

### LIBRARY SIG

The Library SIG met on June 7. Their next meeting is scheduled for July 12.

The SIG will run this year's NIAUG new program contest (see other article elsewhere in this issue for further details).

For additional information on this SIG, call Joe Zeinz at 312/526-0575.

\*\*\*\*\*

### DISCOUNTS OFFERED TO NIAUG MEMBERS

Robert Burkhead of "Computer Outpost", 520 Wise Road, Schaumburg, Ill has offered a standard 10% discount on all computer products to NIAUG members. On the weekend of the NIAUG General meeting he will give a 15% discount. Special orders of goods not in stock, made on that weekend, will also be made at a 15% percent discount if a downpayment is made. To receive discounts you must show your NIAUG Membership Cards.

### HELP WANTED

College student seeks summer work. Experienced in using the Apple II+, especially wordprocessing and data base management programs. Contact Chris at 392-7735.

### SIG BITS & BYTES

by Ken Falter

### BUSINESS SIG

Meets on the fourth Saturday of every month at 10:00 am at:

Mount Prospect Public Library  
10 South Emerson Street  
Mount Prospect, Illinois

(One block east of the intersection of Elmhurst Road (rte. 83) and Central Road).

The June 23 meeting will feature a presentation on Homeword. As always, there will also be a VISICALC CORNER.

Next month's meeting is on July 28.

### BEGINNERS SIG

The SIG continues to have two beginners' groups meeting. It is oriented towards helping "new" or "rusty" Apple users deal with the many questions, frustrations, confusions and "mistakes" that we all have made "in the beginning".

Attendees provide the direction for the meetings by the questions they ask and the topics they bring up. Experienced NIAUG members are the answerers and explainers.

NIAUG members wishing to join the SIG should call Guy Lyle at 312/359-1458.

\*\*\*NOTE: NIAUG membership is required.\*\*\*

## CLUB NEWS

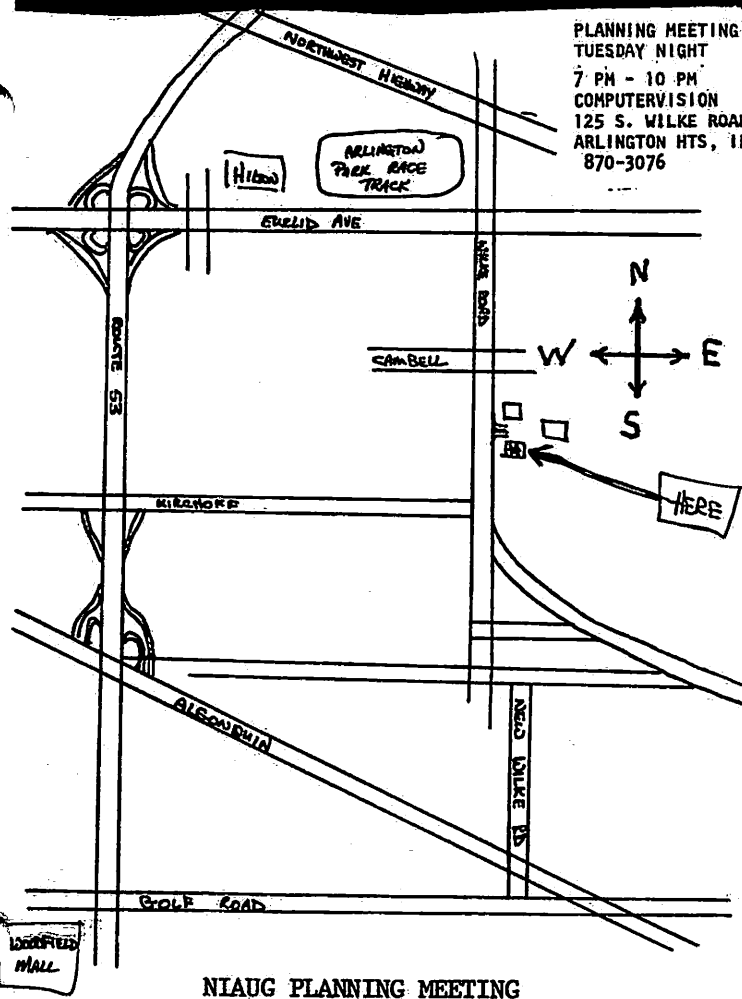
### NIAUG APRIL AGENDA

JULY 14, 1984.

JULY 14'S Meeting will  
be held in Building A  
Harper College

- 10:00-10:30 am Opening Remarks/Club  
Business  
(Rob Stewart)
- 10:30-11:15 am Starting a Software Co.  
(Bill Basham)
- 11:15-11:45 am ProDOS  
(Rob Stewart)
- 11:45-12:00 am Break
- 12:00-12:45 pm Locksmith, Watson,  
Inspector  
(Bill Sefton)
- 12:45- 1:00 pm Mr. Apple/Closing  
Remarks  
(Rob Stewart)

PLANNING MEETING  
TUESDAY NIGHT  
7 PM - 10 PM  
COMPUTERVISION  
125 S. WILKE ROAD  
ARLINGTON HTS, IL  
870-3076



### 1984 SCHEDULE FOR THE NIAUG HARVEST

ISSUE MONTH	DEADLINE FOR ARTICLES/ADVERTISING
AUG	JUNE 12
SEPT	JULY 17
OCT	AUG 14
NOV	SEPT 11
DEC	OCT 16

### COMING MONTHS MEETING DATES

JULY 14-DOS Symposium, AUG 4-Sig Meetings,  
Dates are firm, topics being arranged.

THE HARVEST NEWSLETTER  
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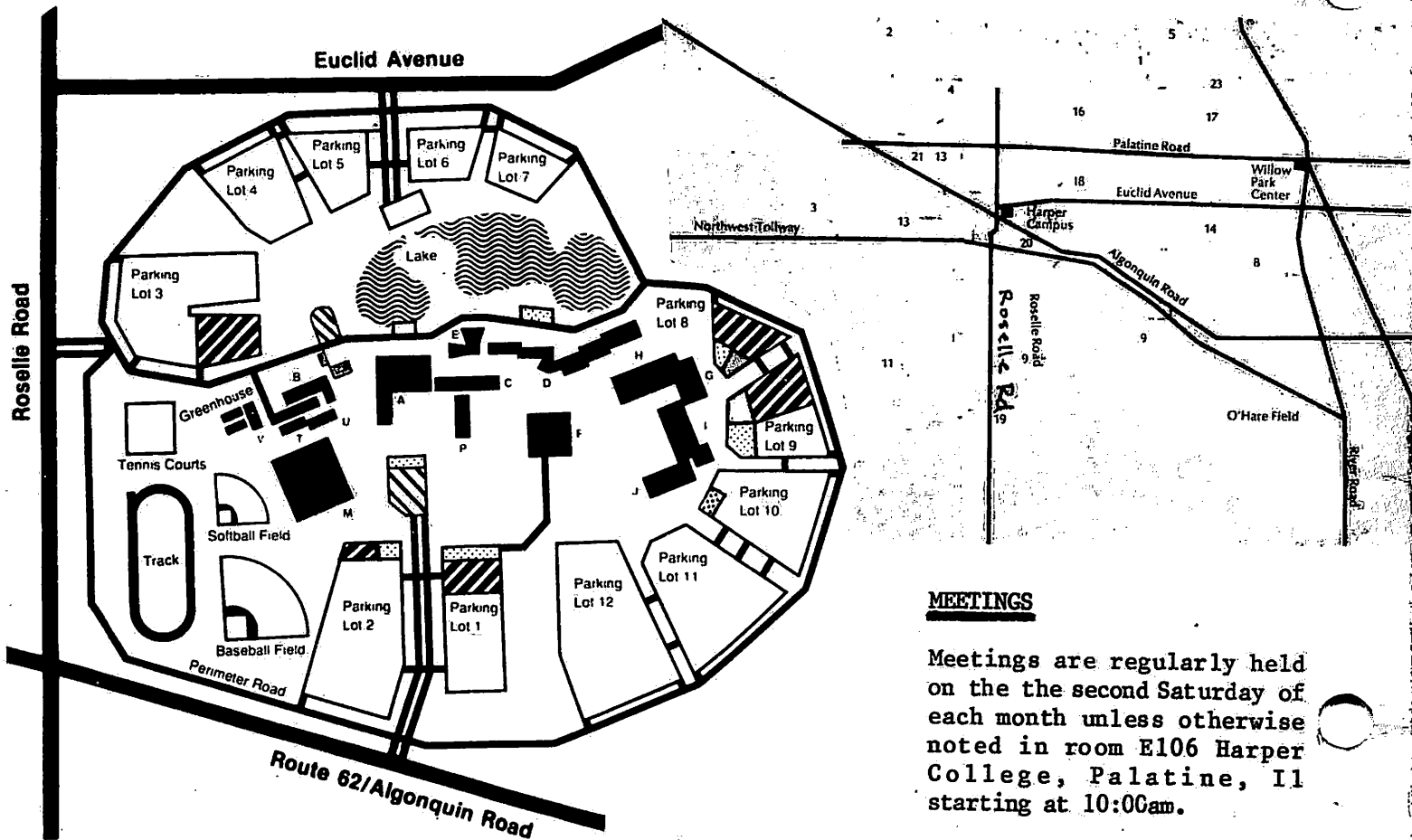
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#### MEETINGS

Meetings are regularly held on the the second Saturday of each month unless otherwise noted in room E106 Harper College, Palatine, IL starting at 10:00am.